AGRICULTURAL ECONOMIC REPORT NO. 227

COSTS OF PRODUCING UPLAND COTTON IN THE UNITED STATES, 1969

U. S. DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE

ABSTRACT

This report presents results of a survey of cotton production inputs and costs in 20 major producing regions of the United States. Average costs per acre and bale are given by input subgroups for each region and the United States. Average costs and receipts (including Government payments) per pound of lint produced are also shown. Production is distributed by cost level regionally and nationally.

Keywords: Cotton, Costs, Production inputs, Farm management.

PREFACE

A 1970 survey measured the costs of producing upland cotton in the United States in 1969. This report presents highlights of findings in major producing areas of the country.

Initial results from the survey were given in "Costs of Producing Upland Cotton in the United States, 1969: A Preliminary Report," U.S. Department of Agriculture (USDA), Economic Research Service (ERS), unnumbered report, October 1971.

Results from previous cost surveys in 1964, 1965, and 1966 were published as (1) "Costs of Producing Upland Cotton in the United States, 1964," USDA, ERS, Agricultural Economic Report (AER) 99, September 1966; (2) "1965 Supplement to Costs of Producing Upland Cotton in the United States, 1964," 1965 Supplement to AER 99, September 1967; and (3) "1966 Supplement to Costs of Producing Upland Cotton in the United States, 1964," 1966 Supplement to AER 99, September 1969. These reports are an integral part of USDA's accelerated research program on reducing costs of cotton production, provided for by the Congress in Public Law 88-297, the Agricultural Act of 1964.

The authors thank their colleagues for assistance in developing methodology and obtaining and processing necessary data. The Statistical Reporting Service, (SRS), USDA, conducted the enumerative survey. The Washington Data Processing Center, SRS, provided systems analysis, programing, and processing services in editing and tabulating data. The Agricultural Stabilization and Conservation Service (ASCS), USDA, made available lists of producers from which the sample was drawn.

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CONTENTS

TEXT TABLES

SUMMARY

Total costs of producing upland cotton in 1969 were 32.0 cents per pound of lint, compared with 26.6 cents in 1966, the most recent prior survey year. This substantial increase is attributed chiefly to reduced yield and lower prices for cottonseed. The 1966 costs were associated with an average yield of 518 pounds of lint per acre, compared with 455 pounds in 1969. Total costs per acre harvested averaged slightly less in 1969 than in 1966, chiefly because of a reduction in labor costs.

About 76 percent of U.S. cotton was produced at a total cost of less than 36 cents per pound of lint. About 17 percent of all cotton cost less than 21 cents per pound to produce.

Costs per pound varied widely within and among cotton production regions in 1969. Estimates ranged from 26.3 cents in the Rolling Plains of Texas to 46.5 cents in the Southern Coastal Plains. Total costs per pound of lint averaged less than 30 cents per pound in four regions--the Rolling Plains, Mississippi Delta, Brown Loam, and Northeast Arkansas. The Mississippi Delta was consistently among the lowest cost regions during the four survey years, 1964-66 and 1969. Two other low-cost regions in 1964-66--the Coastal Prairie of Texas, and Southern California and Southwest Arizona--recorded high costs in 1969 because of relatively low yields.

Direct costs of producing cotton totaled 25.0 cents per pound of lint in 1969. About 46 percent of U.S. cotton was produced at a direct cost of less than 21 cents per pound. Variable costs averaged 18.5 cents per pound of lint in 1969. About 74 percent of U.S. cotton was produced at a variable cost of less than 21 cents per pound.

Survey respondents in 1969 received 36.0 cents per pound of lint, including support payments averaging 15.6 cents per pound of lint produced. In some regions, total costs per pound averaged higher than total receipts per pound, but in no region did variable costs exceed average receipts of that region.

Total costs reflect market rates of return to all factors except unpaid management. Unpaid management was not included because no quantifiable concept of management as an input existed.

Direct cost estimates were considered because they provide a better approximation of required levels of intermediate-term prices. Direct costs of producing cotton excluded charges for land and general farm overhead items, such as taxes and insurance. Direct costs included, as with total cost, a return to unpaid operator and family labor used in producing cotton, and fixed as well as operating costs of power and equipment. The third measure used--variable cost--is more useful for shortrun or year-to-year decisions. This measure of cost contained items that vary with production and for which there would be no costs if cotton production ceased.

COSTS OF PRODUCING UPLAND COTTON IN THE UNITED STATES, 1969

By

I.R. Starbird and B.L. French 1/

INTRODUCTION

This report presents results of the fourth in a recent series of sample surveys of the costs of producing upland cotton in the United States. The primary purpose was to measure changes in these costs. This report follows the format of previous reports but also includes a section on variable costs.

U.S. cotton producers are competing with producers of foreign-grown cotton and synthetic fibers. Efforts to enhance their competitive position include (1) research and promotion to expand demand for U.S. cotton, and (2) research to reduce production costs. This study, a part of the cost reduction program, attempts to measure, systematically, cotton production costs at regional and national levels.

Objectives

Specific objectives of the study were:

1. To establish and update a reliable benchmark of regional and national aggregates of inputs used in producing cotton.

2. To appraise annually the effect of changes in inputs, input prices, and yield on costs of producing cotton.

3. To define more accurately inputs closely associated with changes in cost levels as an aid to scientists in planning future cost reduction research.

This report contains a summary of data used as a major input in meeting these objectives.

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The Sample

About 3,400 cotton farmers were interviewed in 1970 to get basic data used in this analysis. As in previous surveys, only farms planting 5 or more acres of cotton in 1969 were included in the sample. Thus, besides the exclusion of cotton farms outside the selected cotton-producing regions and sampling error, some of the data contained in this report--such as acreages, yields, production, harvest methods, and prices received for lint--vary from official figures published by SRS or other agencies of USDA.

The farm operating unit for sampling purposes was defined as all farming operations and tracts of land under common management, regardless of who owned the land or allotments.

Cost estimates were developed for 20 regions (figure 1). These regions account for more than 90 percent of total U.S. cotton production.

Production and acreage weights used in computing national average costs of production are shown in appendix table 1. The number of farms producing 5 or more acres of cotton and cotton acreage planted on these farms are based on data supplied by the Agricultural Stabilization and Conservation Service. Data on harvested acreages, yields, and production are based on expansions of sample survey results.

Questionnaire Content

The questionnaire contained the detail required for estimates of costs of all input items, including power, equipment, and irrigation. (These input items are defined in the 1964 report--AER 99--listed in the preface.) Unlike previous surveys, the 1969 questionnaire provided all data needed to estimate irrigation costs. Prior surveys relied heavily on secondary sources of irrigation cost data.

Cost Concepts

Costs are presented by input subgroups; such as, labor, power and equipment, and materials. Cost data are presented for further aggregations of input items, including variable costs, direct costs, and total costs. Each of these cost concepts is useful when related to a particular time period.

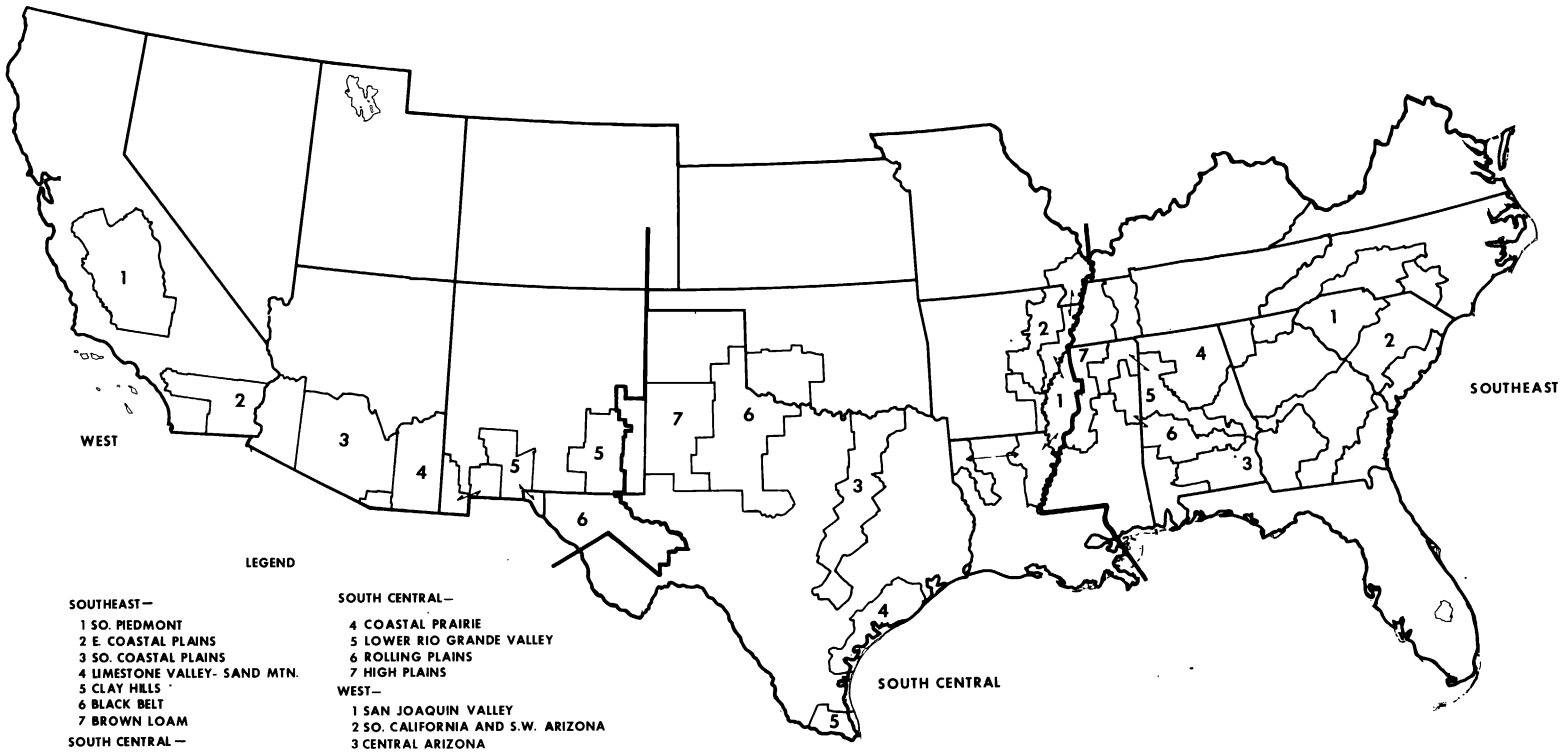
Variable Costs

For shortrun or year-to-year decisions on what and how much to produce, variable cash costs are the relevant consideration. Variable costs include only those items used or applied directly on the cotton crop; that is, items that vary with production and for which there would ordinarily be no costs if cotton production ceased. Included are costs of hired labor, except hired overhead labor and management; operating costs on machinery and equipment; all materials used; ginning, bagging, and ties; custom-hired services; and interest on operating capital.

Direct Costs

Direct costs include variable costs plus unpaid labor valued at hired wage rates, hired overhead labor and management, and depreciation and interest on investment in power and equipment items used in producing

PRODUCTION REGIONS FOR COTTON COST ANALYSIS



LEGEND

SOUTHEAST—
1 SO. PIEDMONT
2 E. COASTAL PLAINS
3 SO. COASTAL PLAINS
4 LIMESTONE VALLEY- SAND MTN.
5 CLAY HILLS
6 BLACK BELT
7 BROWN LOAM

SOUTH CENTRAL—
1 MISSISSIPPI DELTA
2 N.E. ARKANSAS
3 BLACK PRAIRIE
4 COASTAL PRAIRIE
5 LOWER RIO GRANDE VALLEY
6 ROLLING PLAINS
7 HIGH PLAINS

WEST—
1 SAN JOAQUIN VALLEY
2 SO. CALIFORNIA AND S.W. ARIZONA
3 CENTRAL ARIZONA
4 HIGH SOUTHERN DESERT
5 UPPER RIO GRANDE- PECOS VALLEYS
6 TRANS PECOS

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cotton. The latter items commonly do not vary with production in a given year and are subject to longer term decisionmaking and alterations in use or investment. Like variable costs, direct costs include only those items used or applied on the cotton crop, but unlike variable costs are not restricted to cost items that vary with production or disappear if cotton production ends. Direct costs are useful in intermediate term analyses of cotton's competitive position or in cost-price comparisons.

Total Costs

Total costs include direct cost plus allocations of general farm overhead costs--such as taxes and insurance--and land charges. An attempt was made to account for all items used directly or indirectly, both paid and unpaid, in producing cotton, except unpaid management. (The latter was not considered because no sound measure of unpaid management exists.) Some return on land and other capital must be realized so that continuing investment and replacement can be made. Total cost measures provide a general indication of prices or factor returns necessary for production to continue in the long run, given current prices and present production efficiency.

Cost measurements, especially of total costs, are imprecise and vary significantly from year to year. The major difficulties involve valuing unpaid production factors, such as family and operator labor and management; and estimating and allocating farm overhead and land charges on multiproduct farms. Unpaid family labor is valued at a rate equal to the prevailing farm wage rate in the area. Little is known of the quality of this labor, of employment and earnings alternatives, or of minimum acceptable earnings from cotton production.

Computing a meaningful land charge is extremely difficult, especially for purposes of making price-cost comparisons over time. Acreage allotments, support payments, and future expectations tend to become capitalized in land values, resulting in higher land charges. If product prices were based on such increasing costs, an inflationary spiral would result. A better method for some purposes might include as a land charge only such cash outlays as interest on indebtedness and cash or share rent.

Estimation Procedures

Cost components derived from the study are averages of cost data obtained from 3,400 sample farms. All estimates are based on 1969 inputs and cost rates. Costs were computed for each individual farm in the sample, averaged by size group, and weighted to provide regional and U.S. averages.

Several rather arbitrary procedures were followed in estimating and allocating production costs. Procedures used were essentially the same as those of prior surveys. Total costs of producing lint, exclusive of seed, were derived by subtracting total value of seed produced from total costs of producing lint and associated seed. Thus, annual variability in seed prices partially determines the cost residual to be charged against lint. The proportion of value of seed subtracted from direct or variable costs was equal to the ratio of direct to total costs, or variable to total costs, respectively.

General farm overhead cost was allocated to cotton based on the percentage of total farm receipts derived from cotton. Overhead cost includes farm real estate and personal property taxes, insurance payments, social security payments, drainage assessments, building and fence repair, use of personal automobile for farm business, and miscellaneous administrative and maintenance expenses. These expenses cannot be functionally related to enterprises; thus, their allocation is imprecise and arbitrary.

Methods selected to allocate power and equipment cost included: (1) Tractor costs--both fixed and variable costs were allocated to cotton based on the percentage of total tractor hours used in producing cotton; (2) truck costs--allocation to cotton was estimated by multiplying total farm truck costs by the percentage of gross farm income derived from cotton production; and (3) general items used on cotton and other crops, computed by summing annual depreciation (calculated on a straight-line basis), a 7-percent interest rate on capital investment, and an overall repair cost for equipment. The sum of general items was allocated to cotton based on the percentage of total tractor hours used in producing cotton.

Indirect labor expenses--such as those for mechanics, shopmen, managers, and foremen--were allocated to cotton based on the percentage of total farm receipts derived from cotton.

Land cost estimates were based on charges for both landownership and share and cash rental arrangements, as reported by each producer. Land costs associated with these land use situations are weighted in proportion to actual acreage in production under each arrangement. Charges for owned land were based on a 4-percent rate of return on reported average market value of cropland. On farms with skip-row planting patterns, acreage in skips was included in computing a land charge. Land charges for cotton produced on cash-rented land were based on average cash payments per acre for cropland. Also included were payments for allotments leased for the 1969 crop year. Land charges for cotton produced on share-rented land were estimated by subtracting the landlord's share of production expenses from his share of gross receipts from lint and seed produced. When yields drop, as in 1969, the resulting net-share rent charges (net return to landlord for use of land) also tend to drop if based on a predetermined share of receipts and expenses. Other factors tending to reduce average land charge per acre may be a lesser proportion of cotton acreage planted in skip-row patterns, and a greater incidence of cotton acreage plowed up and planted to another crop.

SURVEY RESULTS

National Highlights

Yield

Costs per unit of production are closely related to yield, as well as to selected cost estimation procedures. Relatively high 1969 costs of production were associated with an average yield of only 455 pounds of lint per acre reported by farmers in the sample, compared with 518 pounds of lint on sample farms in 1966. Weather was not favorable for cotton production in many areas of the Cotton Belt in 1969 and yields generally fell below recent 5-year average levels. Especially hard hit were most producing regions in the West; planting was delayed by cold weather, and unusually high temperatures in August and early September

resulted in poor boll set. The hot weather also contributed to a build-up of insects; yields were reduced by bollworms, pink bollworms, lygus, and leaf perforators. An early freeze and heavy rainfall in northwestern Texas reduced yields on late harvested acreage.

Official U.S. yield for 1969, reported by SRS, was 433 pounds of lint per harvested acre, or 22 pounds less than the survey average. Reasons for this difference have not been isolated. However, the surveys excluded farms planting less than 5 acres of cotton. Yields on these small farms are likely to be comparatively low. In addition, surveys omitted production in several areas where yields were historically lower than those in the 20 selected cotton-producing regions.

Total Costs

Estimated average total costs of producing a pound of lint cotton in the United States in 1969 were 32.0 cents, nearly 5-1/2 cents per pound more than in 1966 (table 1). This estimate is based on market rates of return to all factors used in producing cotton except unpaid management.

Labor costs dropped about $2-1/2 per bale from 1966 to 1969, while power and equipment increased more than $10 per bale. In 1969, power and equipment represented about one-fourth of total costs of producing cotton. Materials costs comprised about 17 percent of total costs, and labor and land charges each represented more than 13 percent.

Total cost of producing a bale of lint and associated seed in 1969 was about $177 per bale. In estimating cost of producing lint, value of seed produced was subtracted, resulting in a cost per bale of lint of $160. Current market values of seed were used in this computation. Variability of seed prices is illustrated by the short crop of 1966, which resulted in a high value of seed--$25.94 per bale. In 1969, value of seed dropped to $17.08 per bale. Corresponding prices received by farmers per ton of cottonseed were about $66 in 1966, compared with about $41 in 1969. Had an average price of 2.5 cents per pound of seed been used, resulting cost of producing lint in 1969 would have been about 31.4 cents per pound, or 0.6 cents less than the 32-cent estimate in table 1.

The cumulative percentage of cotton produced below specified cost levels is shown in table 2. About 76 percent of the 1969 upland cotton crop was produced at a total cost of less than 36 cents per pound, compared with 87 percent in 1966.

Many farmers are producing cotton at costs that differ greatly from those indicated in table 1. About 17 percent of U.S. production was produced at a total cost of less than 21 cents per pound of lint; 24 percent was produced at a total cost of 36 or more cents per pound. As indicated in the "Introduction," conceptual and measurement difficulties in estimating total cost limit usefulness of such estimates. These estimates are more reliable as indicators of change over time than of absolute levels.

Direct Costs

Direct costs averaged 25.0 cents per pound, compared with 20.6 cents in 1966 (table 1). About 89 percent of the 1969 crop was produced at a

Table 1.--Production costs per 500-pound bale of upland cotton, United States, 1966 and 1969

Item	Average costs per bale 1/		Percentage of total costs 1/	
	1966	1969	1966	1969
	Dollars		Percent	
Labor	25.78	23.20	16.2	13.1
Power and equipment	34.54	44.84	21.8	25.3
Materials:				
Seed	3.30	4.44	2.1	2.5
Fertilizer	11.74	11.51	7.4	6.5
Herbicides	3.45	4.81	2.2	2.7
Insecticides and fungicides	5.95	7.17	3.7	4.0
Defoliants	0.93	1.24	0.6	0.7
Other chemicals	0.23	0.21	0.1	0.1
Total materials	25.59	29.38	16.1	16.6
Ginning, bagging, and ties	18.36	19.47	11.6	11.0
Custom services	8.25	10.46	5.2	5.9
Irrigation	8.51	8.30	5.4	4.7
Interest on operating capital	2.12	2.87	1.3	1.6
Total direct costs 2/	123.17	138.52	77.6	78.1
Land	22.65	24.40	14.3	13.8
General overhead	12.96	14.40	8.2	8.1
Total cost per bale of lint and associated seed	158.78	177.32	100.0	100.0
Less value of seed produced	-25.94	-17.08	---	---
Cost per bale of lint 3/	132.84	160.24	---	---
Total cost per pound of lint	.266	.320	---	---
Direct cost per pound of lint	.206	.250	---	---
Receipts per pound of lint 4/	.305	.360	---	---

1/ Totals do not necessarily add because of rounding.

2/ Includes all cost items other than land, general overhead, and unpaid management.

3/ Total costs of producing a bale of lint and associated seed minus the value of associated seed.

4/ Includes support payments in both 1966 and 1969 but excludes diversion payments in 1966.

Table 2.--Production of upland cotton cumulated by cost level, United States, 1966 and 1969

Costs per pound of lint	Direct costs only 1/		Total costs 2/	
	1966	1969	1966	1969
	Percent		Percent	
Less than 15 cents	27.9	14.8	8.5	2.7
Less than 18 cents	48.2	30.0	20.1	6.6
Less than 21 cents	64.1	45.8	34.7	16.8
Less than 24 cents	76.2	60.2	51.0	29.8
Less than 27 cents	83.9	71.3	64.0	43.3
Less than 30 cents	89.2	79.3	73.8	56.5
Less than 33 cents	92.1	85.9	82.1	67.5
Less than 36 cents	94.0	89.1	87.0	76.0
Less than 39 cents	95.6	91.5	90.2	82.6
All levels of cost	100.0	100.0	100.0	100.0

1/ Includes the costs of labor, power, and equipment, all materials (seed, fertilizer, herbicides, insecticides, defoliants, and other chemicals) ginning, custom services, irrigation, and interest on operating capital. Excludes land, general overhead, and unpaid management.

2/ Includes direct costs, land charges, and the annual costs of overhead items of real estate and social security taxes; insurance expenses; administrative cost and maintenance of drainage ditches, fences, terraces, etc.

direct cost of less than 36 cents per pound of lint (table 2). About 15 percent was produced at a direct cost of less than 15 cents per pound of lint.

Direct cost in 1969 averaged about $139 per bale of lint and associated seed, or about 78 percent of total cost per bale. The increase in direct cost per bale from 1966 to 1969 was due chiefly to reduction in yield. Direct cost per acre harvested in 1969 remained at about the 1966 level (table 5). In calculating direct cost per pound, about 78 percent of the value of seed per bale was subtracted before dividing by 500.

Variable Costs

Variable costs in 1969 averaged about $92 per bale of lint, or 18.5 cents per pound of lint (table 3). Variable cost items change with production and would not exist if production ceased.

Table 4 indicates the cumulative proportion of cotton produced in the United States below specified levels of variable cost per pound. About 74 percent of the U.S. cotton crop was produced at a variable cost of less than 21 cents per pound. About 96 percent was produced at a variable cost of less than 36 cents per pound, compared with 76 percent produced at a total cost of less than 36 cents. Though returns from a given enterprise may not cover his total costs, the producer will generally decide to retain that enterprise if he expects returns above variable cost to be greater than those from any alternative.

Receipts from Cotton

Farmers in the sample received an average of 36.0 cents per pound of lint. This estimate includes support payments received by program participants, which averaged 15.6 cents per pound of lint produced. It also reflects the respondent's best estimate of the expected price to be received for cotton in storage or not sold at the time of the survey. Average receipts from sale or loan by farmers in the survey were 20.4 cents per pound.

The support payment rate in 1969 was 14.73 cents per pound of lint, earned on the farm's domestic allotment acreage and projected yield rather than actual yield. Additional support payments were earned on small farms. Receipts per pound are greatly influenced by actual yields in a given year. When actual yields are low, Government payments, which are based on projected yields, result in relatively high receipts per pound of lint produced. In other words, relatively constant payments based on projected yields increase receipts per pound of lint produced in years of abnormally low yield like 1969.

Production Adjustments, 1964-69

Cotton producers significantly reduced labor use during 1964-69 (table 5). Labor costs per acre were halved (down about $20 per acre) despite the marked increase in wage rates. Much of this reduction is attributed to the near demise of hand harvesting (down about $10 per acre) and a continuing drop in hand chopping and hoeing (table 6). About 3 percent of the crop was harvested by hand in 1969, compared with about 25 percent in 1964. Increasing use of herbicides is reflected in a reduction of about $4 per acre in chopping and hoeing costs. Chemical weed control has also diminished the frequency of use of mechanical control methods, such as sweep cultivation.

Reduction in labor requirements brought about by greater mechanization and larger machines has resulted in higher costs of power and equipment--from $34 per acre in 1964 to more than $42 per acre in 1969. Tractor costs increased nearly $5 per acre, while mechanical harvesters and miscellaneous equipment costs each increased about $2 per acre. Truck costs per acre remained about the same over the period, as higher total truck costs per farm were offset because a lower percentage of these costs were allocated to cotton and the remainder, to other enterprises.

Table 3.--Variable costs per 500-pound bale of upland cotton, United States, 1969

Item	Average costs per bale 1/	Percentage of total variable costs 1/
	Dollars	Percent
Labor 2/	14.98	14.7
Power and equipment 3/	20.26	19.8
Materials:		
Seed	4.44	4.3
Fertilizer	11.51	11.3
Herbicides	4.81	4.7
Insecticides	7.17	7.0
Defoliants	1.24	1.2
Other chemicals	.21	.2
Total materials	29.38	28.7
Ginning, bagging, and ties	19.47	19.0
Custom services	10.46	10.2
Irrigation 3/	4.79	4.7
Interest on operating capital	2.87	2.8
Total variable costs per bale of lint and associated seed 4/	102.21	100.0
Less share of value of seed produced 5/	-9.84	---
Variable costs per bale of lint 6/	92.37	---
Variable costs per pound of lint	.185	---
Price received per pound of lint 7/	.204	---
Receipts per pound of lint 8/	.360	---

1/ Totals do not necessarily add because of rounding.

2/ Excludes unpaid labor, overhead labor, and management.

3/ Excludes depreciation and interest on investment.

4/ Includes all cost items other than land, general overhead, unpaid labor, overhead labor, management, depreciation, and interest on investment.

5/ Share is equal to the ratio of variable cost to total cost.

6/ Variable costs of producing a bale of lint and associated seed minus a share of the value of seed.

7/ Average receipts from sale or loan by farmers, excluding additional support payments.

8/ Includes market prices and Government payments.

Table 4.--Production of upland cotton cumulated by variable cost level, United States, 1969

Variable costs per pound of lint 1/	Percentage of production
	Percent
Less than 15 cents	41.3
Less than 18 cents	58.9
Less than 21 cents	73.5
Less than 24 cents	84.3
Less than 27 cents	90.6
Less than 30 cents	93.5
Less than 33 cents	95.2
Less than 36 cents	96.0
Less than 39 cents	97.2
All levels of cost	100.0

1/ Variable costs are equal to direct costs less the value of unpaid operator and family labor, overhead labor and management, and less depreciation and interest on investment in power and equipment used in producing cotton.

Table 5.--Production costs per acre of upland cotton harvested, United States, 1969

Cost item	Average costs per acre harvested 1/		
	1964	1966	1969
	Dollars	Dollars	Dollars
Labor	42.40	27.83	21.97
Power and equipment	34.04	37.28	42.46
Materials:			
Seed	3.26	3.56	4.20
Fertilizer	11.44	12.67	10.90
Herbicides	1.59	3.72	4.56
Insecticides	5.69	6.42	6.79
Defoliants	1.00	1.00	1.17
Other chemicals	.30	.25	.20
Total materials	23.26	27.62	27.83
Ginning, bagging, and ties	19.11	19.82	18.44
Custom services	7.74	8.90	9.91
Irrigation	8.37	9.19	7.86
Interest on operating capital	2.49	2.29	2.72
Total direct costs	137.46	132.94	131.18
Land	24.49	24.44	23.11
General overhead	18.74	13.99	13.64
Total costs per acre harvested	180.69	171.38	167.93

1/ Totals do not necessarily add because of rounding.

Table 6.--Labor, power, and equipment costs per acre of upland cotton harvested, United States, 1969

Item	Average costs per acre harvested 1/		
	1964	1966	1969
	Dollars	Dollars	Dollars
Labor:			
Chop and hoe	7.72	5.79	3.55
Irrigation	4.88	2.55	2.43
Hand harvest	11.16	3.98	1.10
Other direct labor	13.10	11.03	11.56
Overhead labor 2/	5.52	4.46	3.36
Total	42.40	27.83	21.97
Power and equipment:			
Tractors	10.90	10.94	15.76
Mechanical harvesters	7.54	9.62	9.37
Trucks	8.61	8.85	8.05
Other	6.99	7.86	9.32
Total	34.04	37.28	42.46
Custom services: 3/			
Mechanical harvesting	3.56	5.39	5.47
Other field operations	4.18	3.51	4.44
Total	7.74	8.90	9.91

1/ Totals do not necessarily add because of rounding.
2/ Includes paid managers and foremen, mechanics and shopmen, bookkeepers, and other farm overhead labor allocated to cotton.
3/ Includes labor, power, and equipment provided by custom operators. Excludes labor used in hand chopping and hoeing, irrigation, and hand harvest.

Survey results showed that fertilizer inputs and costs per acre of cotton have decreased since 1966. Fertilizer costs per acre harvested in 1966 averaged $12.67, whereas in 1969, they dropped to $10.90 per acre (table 5). In plant nutrients, fertilizer inputs dropped from an average of 76 pounds of N per acre in 1966 to 63 pounds of N in 1969, or a return to the 1964 level of use (app. table 2). Estimates available from other sources indicate a leveling off or downtrend in rates of application on cotton. 2/

Herbicide costs per acre harvested nearly tripled from 1964 to 1969, while insecticide costs increased about $1 per acre. The latter costs generally vary from year to year depending on infestation, but the 3 survey years exhibited a gradual uptrend in cost. Custom services, which include custom preharvest operations (largely application of chemicals), as well as custom harvesting, increased about $2 per acre over 1964-69. Custom services totaled about $10 per acre in 1969, of which about $5-1/2 was for mechanical harvesting.

Two cost items vary directly with yield per acre--hand harvesting; and ginning, bagging, and ties. Other costs per acre are influenced less directly, if at all, by level of yield, except for general farm overhead items. If yields per acre in 1969 had remained at the 1966 level, or 518 pounds rather than 455 pounds, hand harvest costs in 1969 would have averaged about $1.25 per acre, which is not significantly greater than the actual 1969 total of $1.10. Ginning, bagging, and tie cost would have averaged about $21 per acre harvested, or about $2.50 per acre higher than the actual $18.44.

General farm overhead costs per acre remained about the same in 1969 as in 1966, although receipts from cotton as a percentage of total farm receipts dropped from 13.6 percent in 1966 to about 9.9 percent in 1969. Substantial increases in soybean acreage were recorded in the Delta and most southeastern regions, while grain sorghum acreages increased importantly in Texas. The combination of low cotton yields, low cottonseed prices, and shifts to other enterprises--such as soybeans, grain sorghum, and livestock--tended to lower the percentage of total overhead costs allocated to cotton. The effect of this reduction on overhead costs per acre was offset by higher prices or cost rates for overhead items.

Regional Highlights

Total Costs

Costs per pound varied widely among regions in 1969 (table 7). Total costs ranged from an average of 26.3 cents per pound of lint in the Rolling Plains of Texas to 46.5 cents in the Southern Coastal Plains. Inputs and costs per acre in the Rolling Plains are among the lowest in the Nation and, when combined with near normal weather as in 1969, can result in low unit costs of production. Costs per acre in the Black Prairie of Texas are the lowest in the Nation, but very low yields in 1969 resulted in high costs per pound (table 8).

2/ U.S. Department of Agriculture, Statistical Reporting Service, Cropping Practices: Corn, Cotton, Soybeans, Wheat, 1964-70. SRS 17, Wash., D.C. 1971.

Table 7.--Average costs of producing upland cotton, and receipts per pound of lint, 20 regions, United States, 1969

Region 1/	Direct costs per pound	Total costs per pound	Receipts per pound 2/
	Cents	Cents	Cents
Southern Piedmont	30.4	37.6	37.4
Eastern Coastal Plains	36.7	43.1	39.5
Southern Coastal Plains	40.4	46.5	40.2
Limestone Valley-Sand Mountain	24.5	31.6	35.9
Clay Hills	25.8	32.7	36.7
Black Belt	29.6	35.7	36.6
Brown Loam	23.4	29.8	34.7
Mississippi Delta	22.4	28.7	35.0
Northeast Arkansas	22.4	28.7	32.6
Black Prairie	30.1	39.0	41.7
Coastal Prairie	25.3	33.1	36.5
Lower Rio Grande Valley	24.9	31.7	33.7
Rolling Plains	19.2	26.3	34.5
High Plains	24.4	31.7	35.7
San Joaquin Valley	25.0	33.1	38.7
Southern California - Southwest Arizona	26.6	32.7	34.0
Central Arizona	29.5	36.1	34.5
High Southern Desert	27.4	34.0	35.0
Upper Rio Grande - Pecos Valleys	27.0	36.3	38.1
Trans Pecos	37.3	46.3	43.5
United States	25.0	32.0	36.0

1/ See figure, page 3, for names and locations of regions.
2/ Includes support payments.

Table 8.--Average yield of upland cotton, and production costs per acre harvested and per pound of lint, 20 regions, United States, 1969

Region	Yield per acre harvested	Costs per acre harvested 1/				Total costs per pound of lint 2/
		Direct	Overhead	Land	Total	
	Pounds	Dollars	Dollars	Dollars	Dollars	Cents
Southern Piedmont	421	145.40	20.38	13.83	179.61	37.6
Eastern Coastal Plains	442	182.30	13.37	18.50	214.17	43.1
Southern Coastal Plains	393	175.95	9.43	17.23	202.60	46.5
Limestone Valley - Sand Mountain	457	128.05	13.32	24.11	165.49	31.6
Clay Hills	495	145.50	21.33	17.40	184.23	32.7
Black Belt	437	146.75	14.63	15.54	176.92	35.7
Brown Loam	519	140.00	14.64	23.93	178.57	29.8
Mississippi Delta	559	144.84	15.27	25.86	185.98	28.7
Northeast Arkansas	496	128.93	11.14	25.26	165.33	28.7
Black Prairie	176	59.24	6.37	11.23	76.84	39.0
Coastal Prairie	294	83.93	8.49	17.15	109.57	33.1
Lower Rio Grande Valley	512	144.21	12.61	27.08	183.90	31.7
Rolling Plains	284	65.04	7.33	16.84	89.21	26.3
High Plains	339	96.99	9.91	19.10	126.00	31.7
San Joaquin Valley	818	236.37	29.04	48.25	313.65	33.1
Southern California - Southwest Arizona	1,110	338.06	29.44	47.44	414.94	32.7
Central Arizona	955	318.24	29.73	41.35	389.32	36.1
High Southern Desert	843	266.32	26.37	37.94	330.64	34.0
Upper Rio Grande-Pecos Valleys	603	186.91	26.01	39.10	252.02	36.3
Trans Pecos	642	269.27	35.14	29.51	333.92	46.3
United States	455	131.18	13.64	23.11	167.93	32.0

1/ Totals do not necessarily add because of rounding.
2/ Value of seed subtracted from total costs of producing lint and associated seed, divided by yield plus an allowance for the weight of bagging and ties.

Total costs averaged less than 30 cents per pound of lint in only four regions: Rolling Plains, Mississippi Delta, Brown Loam, and Northeast Arkansas. Average total costs ranged from 26.3 cents to 29.8 cents per pound of lint. The Mississippi Delta consistently ranked among the lowest cost regions during the 4 survey years.

Rankings of the Coastal Prairie and Southern California-Southwest Arizona regions changed from below average levels of cost in 1964-66 to above average in 1969 because of relatively low yields. The Southeast experienced a generally poor year in 1969 because of unfavorable weather.

Changes in unit costs from 1966 to 1969 were closely associated with changes in yield per harvested acre. Only two regions--Limestone Valley-Sand Mountain in Northern Alabama and Northeast Arkansas--had lower costs per pound in 1969 than in 1966. Both of these regions experienced large increases in yield per acre.

Regional and national cost summaries include preharvest costs on farms which failed to harvest their acreage planted to cotton. Including these costs contributed to high unit costs in 1969 in the Eastern and Southern Coastal Plains, where harvested acres as a percentage of planted acres averaged about 84 percent and 88 percent, respectively.

Interregional comparisons of unit costs should consider the extremely variable weather and differences in resources and composition of inputs in U.S. cotton production. Similarly, account should be taken of differences among regions in quality of cotton produced and corresponding price differences. For example, total costs of producing cotton in the San Joaquin Valley of California in 1969 were 33 cents per pound, compared with only 26 cents per pound in the Rolling Plains of Texas. Prices received per pound of lint, however, were about 4 cents higher in the San Joaquin Valley. Prices received through sale or loan in the High Plains and Rolling Plains were consistently lower than those of other regions during 1964-66 and in 1969. When Government payments are added, as in table 7, resulting receipts per pound are close to the U.S. average.

Direct Costs

Direct costs ranged from an average of 19.2 cents per pound of lint in the Rolling Plains of Texas to 40.4 cents per pound in the Southern Coastal Plains (table 7). Regional rankings of direct costs closely paralleled those of total costs. However, direct costs as a percentage of total costs varied by region, according to the relative importance of land and overhead cost items. The range was from about 73 percent of total cost in the Rolling Plains to about 87 percent in the Southern Coastal Plains. The spread between direct and total costs averaged 7 cents per pound of lint for the Nation. This spread ranged narrowly from 6.1 cents per pound in three regions--the Southern Coastal Plains, Black Belt, and Southern California and Southwest Arizona--to 9.3 cents per pound in the Upper Rio Grande-Pecos Valleys Region.

Variable Costs

Variable costs per acre harvested and per pound of lint are shown in table 9. Variable costs per pound of lint in the United States averaged 18.5 cents in 1969 and ranged from 13.4 cents per pound in the Rolling Plains to 28.9 cents per pound in the Southern Coastal Plains. Variable costs in 12 of the 20 regions averaged less than 20 cents per pound in 1969. In some areas, total costs per pound exceeded total

Table 9.--Average yield of upland cotton, and variable costs per acre harvested and per pound of lint, 20 regions, United States, 1969 1/

Region	Yield per acre harvested	Variable costs per acre harvested				Variable costs per pound of lint 2/
		Labor	Power and equipment	Other variables	Total	
	Pounds	Dollars	Dollars	Dollars	Dollars	Cents
Southern Piedmont	421	12.19	21.68	73.87	107.74	22.5
Eastern Coastal Plains	442	14.50	24.05	95.77	134.32	27.0
Southern Coastal Plains	393	9.95	23.14	93.00	126.09	28.9
Limestone Valley-Sand Mountain	457	8.39	18.50	65.04	91.93	17.6
Clay Hills	495	11.13	18.81	76.02	105.96	18.8
Black Belt	437	14.22	24.26	74.10	112.58	22.7
Brown Loam	519	12.93	21.00	66.58	100.51	16.8
Mississippi Delta	559	13.55	23.13	71.32	108.00	16.7
Northeast Arkansas	496	15.54	20.90	57.96	94.40	16.4
Black Prairie	176	5.15	9.53	24.90	39.58	20.1
Coastal Prairie	294	7.13	13.44	37.26	57.83	17.4
Lower Rio Grande Valley	512	19.65	17.14	77.89	114.68	19.8
Rolling Plains	284	6.33	11.03	28.05	45.41	13.4
High Plains	339	12.63	13.83	41.08	67.54	17.0
San Joaquin Valley	818	35.08	33.99	115.31	184.38	19.5
Southern California-Southwest Arizona	1,110	39.34	38.33	208.64	286.31	22.5
Central Arizona	955	37.44	35.65	183.12	256.21	23.7
High Southern Desert	843	37.94	37.44	101.11	176.49	18.2
Upper Rio Grande-Pecos Valleys	603	30.74	30.87	67.61	129.22	18.6
Trans Pecos	642	38.54	29.56	139.47	207.57	28.8
United States	455	14.19	19.19	63.42	96.80	18.5

1/ Variable costs include expenditures for labor; fuel, lubricants, and repairs on power and equipment; all materials (seed, fertilizer, herbicides, insecticides, defoliants, and other chemicals) ginning; custom services; irrigation costs other than depreciation and interest on investment in facilities; and interest on operating capital. Excludes land, general overhead, unpaid labor, overhead labor, management, depreciation and interest on investment.
2/ Share of seed, equal to the ratio of variable costs to total costs, subtracted from variable costs of producing lint and associated seed, divided by yield plus an allowance for the weight of bagging and ties.

receipts per pound, but in no region did variable costs per pound exceed average receipts in that region in 1969. This comparison demonstrates the capacity of producers in some regions to survive years of low yields and high costs by meeting their variable cash costs, or those inputs which require compensation if production is to take place. Returns to some resources can be deferred in part or in entirety for one or more production periods. These deferrals may be in the form of depreciation, interest on investment, or returns to unpaid operator and family labor and management.

Variable costs per pound of lint were lower in each region than that region's average receipts per pound. However, in eight regions, variable costs averaged higher than market prices received for lint. (Government payments are included in "receipts per pound" and excluded in "market price.") These regions were located chiefly in the Southeast and West and included southeastern regions 1, 2, 3, and 6; South Central region 3; and western regions 2, 3, and 6. These observations are affected importantly by yields, which fluctuate from year to year. Results in the Southeast are generally consistent with observations from previous surveys, while unusually high costs in the Black Prairie of Texas and Southern California-Southwest Arizona were associated with unusually low yields.

Although the delineated regions are quite homogenous with respect to climate, soils, and other environmental conditions, variable costs of production varied widely within regions (app. table 8). For example, in the Southern Piedmont, where costs have been relatively high in recent years, about 23 percent of the cotton crop was produced at a variable cost of less than 15 cents per pound. On the other hand, about 11 percent was produced at a variable cost of 30 or more cents per pound. Approximately 5 percent of the crop in this region was produced at variable cost levels that exceeded average receipts of 37.4 cents per pound.

APPENDIX TABLES

Appendix table 1.--Acreage, yields, and production of upland cotton, 20 regions, United States, 1969 1/

Region	Number of farms	Planted acreage	Harvested acreage 2/	Yield per harvested acre	Total production 2/
	Number	Acres	Acres	Pounds	Bales
Southern Piedmont	4,523	156,125	148,137	421	129,910
Eastern Coastal Plains	14,420	510,347	426,271	442	392,793
Southern Coastal Plains	5,871	206,560	181,830	393	148,816
Limestone Valley-Sand Mountain	9,737	304,680	297,563	457	283,202
Clay Hills	12,959	215,249	211,437	495	217,936
Black Belt	4,099	149,760	145,034	437	131,976
Brown Loam	15,737	547,936	535,915	519	578,942
Mississippi Delta	22,823	1,914,789	1,849,394	559	2,152,820
Northeast Arkansas	7,722	405,104	402,397	496	415,657
Black Prairie	10,870	805,494	735,150	176	268,859
Coastal Prairie	4,362	353,740	337,701	294	206,599
Lower Rio Grande Valley	2,988	310,142	290,430	512	309,750
Rolling Plains	18,555	1,405,543	1,307,611	284	772,810
High Plains	14,304	2,044,486	1,833,346	339	1,294,359
San Joaquin Valley	4,795	643,256	640,707	818	1,092,149
Southern California - Southwest Arizona	640	100,566	99,931	1,110	231,012
Central Arizona	940	218,503	218,279	955	434,272
High Southern Desert	532	38,784	38,352	843	67,372
Upper Rio Grande-Pecos Valleys	1,456	107,608	104,276	603	130,927
Trans Pecos	329	65,654	64,268	642	85,977
United States	157,662	10,504,326	9,868,024	455	9,346,132

1/ These data are based on farms planting 5.0 or more acres of cotton in the 20 specified regions.

2/ Totals do not necessarily add because of rounding.

Appendix table 2.--Fertilizer used in producing upland cotton, 20 regions, United States, 1969

Region	Pounds per acre planted of --		
	N	P_2O_5	K_2O
Southern Piedmont	83	78	94
Eastern Coastal Plains	92	70	98
Southern Coastal Plains	88	68	91
Limestone Valley - Sand Mountain	68	74	79
Clay Hills	66	65	66
Black Belt	83	63	63
Brown Loam	78	80	80
Mississippi Delta	78	26	32
Northeast Arkansas	63	37	46
Black Prairie	38	19	2
Coastal Prairie	59	49	7
Lower Rio Grande Valley	54	14	2
Rolling Plains	12	9	1
High Plains	33	24	2
San Joaquin Valley	123	33	3
Southern California- Southwest Arizona	292	80	0
Central Arizona	179	19	0
High Southern Desert	113	48	0
Upper Rio Grande- Pecos Valleys	44	33	4
Trans Pecos	172	73	4
United States	63	34	26

Appendix table 3.--Methods of harvesting upland cotton, 20 regions, United States, 1969

Region	By machine				By hand		
	Picked	Stripped	Gleaned	Total	Picked	Snapped	Total
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Southern Piedmont	82.8	0.4	---	83.2	16.4	0.4	16.8
Eastern Coastal Plains	93.6	---	---	93.6	6.3	0.1	6.4
Southern Coastal Plains	90.1	---	---	90.1	9.1	0.8	9.9
Limestone Valley - Sand Mountain	92.4	0.5	---	92.9	4.7	2.4	7.1
Clay Hills	88.5	---	---	88.5	11.0	0.5	11.5
Black Belt	85.1	---	---	85.1	14.9	---	14.9
Brown Loam	88.4	1.5	---	89.9	10.0	0.1	10.1
Mississippi Delta	98.0	---	---	98.0	2.0	---	2.0
Northeast Arkansas	95.5	1.8	---	97.3	2.5	0.2	2.7
Black Prairie	1.0	98.7	---	99.7	---	0.3	0.3
Coastal Prairie	82.1	15.2	0.2	97.5	0.6	1.9	2.5
Lower Rio Grande Valley	95.5	1.7	---	97.2	1.7	1.1	2.8
Rolling Plains	8.0	91.8	0.1	99.9	---	0.1	0.1
High Plains	6.0	93.6	0.1	99.7	---	0.3	0.3
San Joaquin Valley	99.8	0.1	---	99.9	0.1	---	0.1
Southern California - Southwest Arizona	96.3	---	3.6	99.9	0.1	---	0.1
Central Arizona	95.1	---	4.9	100.0	---	---	---
High Southern Desert	96.4	0.2	0.6	97.2	2.8	---	2.8
Upper Rio Grande - Pecos Valleys	94.5	---	1.6	96.1	3.9	---	3.9
Trans Pecos	82.6	9.4	5.5	97.5	1.9	0.6	2.5
United States	72.9	23.7	0.5	97.1	2.6	0.3	2.9

Note: --- = no data.

Appendix table 4.--Production of upland cotton cumulated by cost level, 20 regions, United States, 1969

Costs per pound of lint	Southern Piedmont			Eastern Coastal Plains		
	Direct costs only 1/	Direct and overhead costs 2/	Direct, overhead, and land costs 3/	Direct costs only 1/	Direct and overhead costs 2/	Direct, overhead, and land costs 3/
	Percent	Percent	Percent	Percent	Percent	Percent
Less than 15 cents	10.0	10.0	0.0	4.2	4.2	0.0
Less than 18 cents	15.7	10.4	10.0	13.3	10.4	6.4
Less than 21 cents	26.6	19.7	11.6	14.1	14.0	11.0
Less than 24 cents	33.3	29.1	21.2	18.2	16.4	13.3
Less than 27 cents	47.1	32.8	27.0	40.5	34.0	16.5
Less than 30 cents	56.4	46.0	36.0	54.4	40.5	32.1
Less than 33 cents	69.0	53.0	43.1	70.1	55.9	41.8
Less than 36 cents	75.9	64.2	54.1	75.6	70.3	57.8
Less than 39 cents	82.6	70.3	67.2	81.0	77.0	69.5
All levels of cost	100.0	100.0	100.0	100.0	100.0	100.0
	Southern Coastal Plains			Limestone Valley-Sand Mountain		
Less than 15 cents	0.8	0.0	0.0	8.6	1.5	0.0
Less than 18 cents	3.9	1.9	0.8	39.4	16.4	1.3
Less than 21 cents	8.9	8.5	2.8	56.4	47.3	11.6
Less than 24 cents	20.9	15.9	8.7	67.7	58.2	33.2
Less than 27 cents	36.5	29.9	17.6	74.4	68.2	51.4
Less than 30 cents	47.2	41.5	31.7	81.6	74.9	63.7
Less than 33 cents	55.4	52.1	41.4	87.3	80.4	70.3
Less than 36 cents	64.4	60.5	51.1	89.4	86.4	78.5
Less than 39 cents	71.3	67.6	59.6	91.8	88.3	82.9
All levels of cost	100.0	100.0	100.0	100.0	100.0	100.0

--Continued

Appendix table 4.--Production of upland cotton cumulated by cost level, 20 regions, United States, 1969 --continued

Costs per pound of lint	Clay Hills			Black Belt		
	Direct costs only 1/	Direct and overhead costs 2/	Direct, overhead, and land costs 3/	Direct costs only 1/	Direct and overhead costs 2/	Direct, overhead and land costs 3/
	Percent	Percent	Percent	Percent	Percent	Percent
Less than 15 cents	4.5	3.7	1.0	4.2	3.5	0.0
Less than 18 cents	16.5	11.1	1.0	15.8	4.2	4.2
Less than 21 cents	36.0	30.1	8.8	20.8	17.8	5.8
Less than 24 cents	57.1	37.5	20.8	38.1	28.0	18.7
Less than 27 cents	66.9	47.0	36.0	60.8	46.2	26.5
Less than 30 cents	77.9	67.3	47.0	68.7	61.5	37.9
Less than 33 cents	81.4	73.3	68.1	76.3	68.3	58.2
Less than 36 cents	84.4	74.0	70.0	83.4	76.7	68.5
Less than 39 cents	86.2	80.5	76.4	84.7	82.4	78.9
All levels of cost	100.0	100.0	100.0	100.0	100.0	100.0
	Brown Loam			Mississippi Delta		
Less than 15 cents	11.1	7.3	1.2	18.9	8.7	4.1
Less than 18 cents	28.6	23.8	9.8	37.4	28.6	5.4
Less than 21 cents	54.8	43.1	19.9	55.3	39.6	22.8
Less than 24 cents	67.2	59.4	32.7	66.3	57.8	38.5
Less than 27 cents	81.5	72.9	52.2	77.3	68.6	51.1
Less than 30 cents	87.3	80.9	66.4	87.7	79.7	63.2
Less than 33 cents	90.1	86.0	77.6	93.7	88.7	76.2
Less than 36 cents	91.5	88.7	81.9	95.0	92.6	84.4
Less than 39 cents	92.4	90.6	88.2	96.2	94.5	91.2
All levels of cost	100.0	100.0	100.0	100.0	100.0	100.0

--Continued

Appendix table 4.--Production of upland cotton cumulated by cost level, 20 regions, United States, 1969--Continued

Costs per pound of lint	Northeast Arkansas			Black Prairie		
	Direct costs only 1/	Direct and overhead costs 2/	Direct, overhead, and land costs 3/	Direct costs only 1/	Direct and overhead costs 2/	Direct, overhead, and land costs 3/
	Percent	Percent	Percent	Percent	Percent	Percent
Less than 15 cents	11.7	5.3	0.0	18.4	8.9	0.0
Less than 18 cents	28.6	18.3	1.8	29.8	23.2	3.7
Less than 21 cents	44.2	37.3	11.6	43.6	36.0	19.1
Less than 24 cents	67.0	51.6	27.8	54.8	47.1	26.8
Less than 27 cents	80.7	70.8	42.7	62.5	56.6	40.2
Less than 30 cents	87.6	82.3	64.6	69.3	63.8	49.3
Less than 33 cents	93.9	89.4	79.6	75.1	69.7	58.8
Less than 36 cents	96.1	92.8	86.8	79.4	75.3	64.6
Less than 39 cents	97.6	95.2	92.4	84.6	78.0	70.6
All levels of cost	100.0	100.0	100.0	100.0	100.0	100.0
	Coastal Prairie			Lower Rio Grande Valley		
Less than 15 cents	14.6	9.1	2.1	8.6	3.1	0.0
Less than 18 cents	33.2	26.0	4.0	16.5	14.4	1.1
Less than 21 cents	51.8	37.1	18.5	39.9	25.7	8.8
Less than 24 cents	66.5	53.2	29.2	57.7	46.7	17.6
Less than 27 cents	72.7	66.9	46.1	66.7	63.4	38.9
Less than 30 cents	79.8	73.1	61.0	76.1	69.1	54.0
Less than 33 cents	83.6	79.8	66.7	86.9	76.0	63.5
Less than 36 cents	85.7	82.8	76.0	90.0	85.1	72.2
Less than 39 cents	88.2	84.0	80.5	92.2	90.1	79.5
All levels of cost	100.0	100.0	100.0	100.0	100.0	100.0

--Continued

Appendix table 4.--Production of upland cotton cumulated by cost level, 20 regions, United States, 1969 --Continued

Costs per pound of lint	Rolling Plains			High Plains		
	Direct costs only 1/	Direct and overhead costs 2/	Direct, overhead, and land costs 3/	Direct costs only 1/	Direct and overhead costs 2/	Direct, overhead, and land costs 3/
	Percent	Percent	Percent	Percent	Percent	Percent
Less than 15 cents	37.8	29.4	11.8	21.8	14.9	3.2
Less than 18 cents	56.3	44.0	24.0	42.5	26.9	10.3
Less than 21 cents	71.1	65.8	35.6	55.7	47.9	23.3
Less than 24 cents	83.4	73.4	51.5	68.5	61.0	43.5
Less than 27 cents	90.9	86.4	69.5	76.1	71.0	54.3
Less than 30 cents	93.3	90.8	73.9	80.6	75.5	64.5
Less than 33 cents	95.3	92.7	85.4	84.4	82.0	74.1
Less than 36 cents	96.1	94.9	89.7	87.9	84.6	76.3
Less than 39 cents	97.3	96.4	92.6	90.3	87.7	82.9
All levels of cost	100.0	100.0	100.0	100.0	100.0	100.0
	San Joaquin Valley			Southern California-Southwest Arizona		
Less than 15 cents	6.9	2.4	0.5	3.2	2.0	0.0
Less than 18 cents	19.7	9.8	2.5	6.9	3.8	2.0
Less than 21 cents	36.7	23.8	6.4	25.7	11.6	3.3
Less than 24 cents	61.6	41.1	14.8	44.2	32.6	13.3
Less than 27 cents	70.0	61.5	29.2	60.2	54.3	25.3
Less than 30 cents	76.9	68.5	52.0	81.3	58.8	48.7
Less than 33 cents	85.4	77.5	58.2	85.8	81.1	57.8
Less than 36 cents	91.0	82.5	71.1	89.7	85.1	79.3
Less than 39 cents	93.8	88.5	77.8	91.9	89.7	83.6
All levels of cost	100.0	100.0	100.0	100.0	100.0	100.0

--Continued

Appendix table 4.--Production of upland cotton cumulated by cost level, 20 regions, United States, 1969--Continued

Costs per pound of lint	Central Arizona			High Southern Desert		
	Direct costs only 1/	Direct and overhead costs 2/	Direct, overhead, and land costs 3/	Direct costs only 1/	Direct and overhead costs 2/	Direct, overhead, and land costs 3/
	Percent	Percent	Percent	Percent	Percent	Percent
Less than 15 cents	1.0	0.0	0.0	4.8	1.4	0.0
Less than 18 cents	1.4	1.0	0.0	18.5	11.6	1.1
Less than 21 cents	13.6	5.1	1.0	33.3	21.3	6.5
Less than 24 cents	29.9	14.7	1.0	52.0	34.2	23.9
Less than 27 cents	49.7	44.3	18.7	58.9	51.2	35.8
Less than 30 cents	56.9	50.3	27.3	67.5	59.3	47.2
Less than 33 cents	74.2	65.9	42.8	79.4	70.5	55.9
Less than 36 cents	77.9	70.4	62.7	84.7	76.0	64.6
Less than 39 cents	81.5	76.9	69.3	92.0	83.6	74.6
All levels of cost	100.0	100.0	100.0	100.0	100.0	100.0
	Upper Rio Grande-Pecos Valleys			Trans Pecos		
Less than 15 cents	10.4	6.7	1.6	0.0	0.0	0.0
Less than 18 cents	17.4	11.5	3.5	2.5	1.3	0.0
Less than 21 cents	37.1	23.2	8.1	4.8	2.1	0.8
Less than 24 cents	53.1	35.3	19.0	8.9	5.6	2.6
Less than 27 cents	63.8	51.5	23.5	24.7	10.2	5.8
Less than 30 cents	74.2	59.7	37.0	37.1	18.7	8.8
Less than 33 cents	78.9	69.7	51.1	47.8	29.4	16.5
Less than 36 cents	85.6	78.1	63.5	57.6	44.9	31.0
Less than 39 cents	89.7	83.1	73.4	67.5	51.7	37.6
All levels of cost	100.0	100.0	100.0	100.0	100.0	100.0

1/ Includes the cost of labor; power and equipment; all materials (seed, fertilizer, herbicides, insecticides, defoliants, and other chemicals); ginning; custom services; irrigation; and interest on operating capital.

2/ Includes direct costs plus the annual costs of overhead items of real estate and social security taxes; insurance expenses; administrative costs; and maintenance of drainage ditches, fences, terraces, etc.

3/ Total cost of producing cotton.

Appendix table 5.--Average yields of upland cotton and production costs per harvested acre and per pound of lint, 20 regions, United States, 1969

Region	Yield per harvested acre	Costs per harvested acre										Total costs per pound of lint 2/
		Labor	Power and equipment	Materials			Other direct 1/	Total direct	General overhead	Land	Total	
				Fertilizer	Insecticides	Total						
	Pounds	Dollars										Cents
Southern Piedmont	421	21.63	49.89	23.20	11.51	47.45	26.43	145.40	20.38	13.83	179.61	37.6
Eastern Coastal Plains	442	22.42	64.11	28.61	18.22	61.37	34.40	182.30	13.37	18.50	214.17	43.1
Southern Coastal Plains	393	16.32	66.63	24.22	16.19	55.98	37.02	175.95	9.43	17.23	202.60	46.5
Limestone Valley-Sand Mountain	457	14.79	48.17	18.21	8.06	37.20	27.89	128.05	13.32	24.11	165.49	31.6
Clay Hills	495	19.75	49.74	16.56	6.74	33.61	42.40	145.50	21.33	17.40	184.23	32.7
Black Belt	437	22.90	49.75	19.33	12.40	43.31	30.80	146.75	14.63	15.54	176.92	35.7
Brown Loam	519	21.09	52.34	16.21	4.78	31.28	35.30	140.00	14.64	23.93	178.57	29.8
Mississippi Delta	559	22.03	50.85	11.54	10.92	35.61	36.34	144.84	15.27	25.86	185.98	28.7
Northeast Arkansas	496	22.25	48.01	11.57	2.41	24.62	34.05	128.93	11.14	25.26	165.33	28.7
Black Prairie	176	11.59	22.71	7.32	2.40	14.65	10.29	59.24	6.37	11.23	76.84	39.0
Coastal Prairie	294	12.78	33.62	8.78	3.27	19.60	17.93	83.93	8.49	17.15	109.57	33.1
Lower Rio Grande Valley	512	25.95	39.37	8.33	11.10	28.20	50.69	144.21	12.61	27.08	183.90	31.7
Rolling Plains	284	12.59	23.24	1.51	1.26	8.32	20.88	65.04	7.33	16.84	89.21	26.3
High Plains	339	17.98	29.38	5.91	0.53	15.52	34.10	96.99	9.91	19.10	126.00	31.7
San Joaquin Valley	818	50.51	62.96	15.37	10.92	37.59	85.30	236.37	29.04	48.25	313.65	33.1
Southern California-Southwest Arizona	1,110	53.88	69.10	28.35	35.99	82.01	133.06	338.06	29.44	47.44	414.94	32.7
Central Arizona	955	51.38	64.68	17.47	21.81	51.41	150.78	318.24	29.73	41.35	389.32	36.1
High Southern Desert	843	54.96	89.32	13.47	3.01	25.06	96.98	266.32	26.37	37.94	330.64	34.0
Upper Rio Grande-Pecos Valleys	603	40.69	66.07	8.26	3.38	20.20	59.95	186.91	26.01	39.10	252.02	36.3
Trans Pecos	642	48.03	51.63	18.74	14.39	42.82	126.79	269.27	35.14	29.51	333.92	46.3
United States	455	21.97	42.46	10.90	6.79	27.83	38.93	131.18	13.64	23.11	167.93	32.0

1/ Includes the cost of irrigation, ginning, custom services, and interest on operating capital.
2/ Obtained by subtracting the value of seed from the total costs of producing lint and associated seed and dividing by yield plus an allowance for the weight of bagging and ties.

Note: Totals do not necessarily add because of rounding.

Appendix table 6 --Distribution of upland cotton production, yields, and factor costs, by cost level, 20 regions, United States, 1969

Regional costs per pound of lint	Percentage of production	Yield per harvested acre	Costs of producing a 500-lb. bale of lint and associated seed: Labor	Power and equipment	Total materials	Other direct 1/	Total direct	General overhead	Land	Total	Total costs per 500-lb. bale of lint 2/	Total costs per pound of lint
	Percent	Pounds	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Cents
Southern Piedmont:												
Less than 15 cents --	---	---	---	---	---	---	---	---	---	---	---	---
15 to 17 cents ------	10.0	582	8.83	29.00	26.43	18.00	82.27	3.73	10.21	96.21	79.99	16.0
18 to 20 cents ------	1.6	400	25.98	37.58	22.25	20.95	106.76	8.27	3.30	118.33	99.08	19.8
21 to 23 cents ------	9.6	617	7.83	27.46	39.56	27.10	101.94	11.15	12.30	125.39	110.76	22.2
24 to 26 cents ------	5.8	580	18.81	32.11	47.19	29.29	127.40	11.34	12.49	151.23	129.17	25.8
27 to 29 cents ------	9.0	402	16.43	32.57	48.34	30.54	127.88	12.91	18.50	159.28	143.59	28.7
30 to 32 cents ------	7.1	430	21.23	48.41	53.04	22.23	144.93	11.82	13.27	170.02	154.78	31.0
33 to 35 cents ------	11.0	414	22.38	43.10	62.55	32.44	160.47	16.41	16.72	193.61	175.86	35.2
36 to 38 cents ------	13.1	418	33.82	54.34	51.29	29.63	169.07	20.85	14.68	204.60	187.61	37.5
39 cents and up -----	32.8	354	34.96	91.40	68.05	36.00	230.41	39.34	19.00	288.74	271.76	54.4
Total or average 3/	100.0	421	24.66	56.89	54.11	30.13	165.80	23.24	15.78	204.81	187.95	37.6
Eastern Coastal Plains:												
Less than 15 cents --	---	---	---	---	---	---	---	---	---	---	---	---
15 to 17 cents ------	6.4	677	5.86	17.16	30.85	24.32	78.20	4.53	15.02	97.74	82.65	16.5
18 to 20 cents ------	4.6	925	15.49	29.91	30.28	22.25	97.92	5.42	13.33	116.68	98.83	19.8
21 to 23 cents ------	2.3	789	7.27	23.20	37.49	26.56	94.53	8.41	16.73	119.66	105.66	21.1
24 to 26 cents ------	3.2	632	18.71	26.58	43.41	32.02	120.73	6.48	13.29	140.49	122.93	24.6
27 to 29 cents ------	15.6	577	19.75	39.24	49.42	30.62	139.03	8.42	11.84	159.30	141.58	28.3
30 to 32 cents ------	9.7	542	17.35	43.46	47.61	41.15	149.56	11.98	14.46	176.00	158.26	31.7
33 to 35 cents ------	16.0	493	27.90	42.53	51.84	37.53	159.78	13.42	18.74	191.94	175.52	35.1
36 to 38 cents ------	11.7	436	25.01	47.86	63.33	32.84	169.04	14.87	16.73	200.64	183.73	36.7
39 cents and up -----	30.5	326	30.19	116.95	93.77	45.78	286.69	21.51	25.64	333.84	316.43	63.3
Total or average 3/	100.0	442	24.33	69.57	66.60	37.33	197.84	14.51	20.08	232.42	215.35	43.1

--Continued

Appendix table 6.--Distribution of upland cotton production, yields, and costs, by cost level, 20 regions, United States, 1969 --Continued

Regional costs per pound of lint	Percentage of production	Yield per harvested acre	Costs of producing a 500-lb. bale of lint and associated seed: Labor	Power and equipment	Total materials	Other direct 1/	Total direct	General overhead	Land	Total	Total costs per 500-lb. bale of lint 2/	Total costs per pound of lint
	Percent	Pounds	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Cents
Southern Coastal Plains:												
Less than 15 cents -	---	---	---	---	---	---	---	---	---	---	---	---
15 to 17 cents -----	0.8	849	8.28	30.28	28.94	18.58	86.08	3.96	11.48	101.51	87.11	17.4
18 to 20 cents -----	2.0	564	9.00	35.67	32.01	24.13	100.82	6.22	8.56	115.60	99.94	20.0
21 to 23 cents -----	5.9	647	15.26	24.73	28.91	36.72	105.62	4.02	18.08	127.72	112.72	22.5
24 to 26 cents -----	8.9	755	11.73	31.62	41.84	43.86	129.04	6.38	9.81	145.24	130.47	26.1
27 to 29 cents -----	14.1	550	11.52	36.48	50.73	35.91	134.63	7.94	13.70	156.28	140.83	28.2
30 to 32 cents -----	9.7	470	13.59	39.45	54.50	43.56	151.10	6.46	12.91	170.46	155.36	31.1
33 to 35 cents -----	9.7	519	13.58	51.29	56.41	40.53	161.81	11.61	14.46	187.88	172.58	34.5
36 to 38 cents -----	8.5	391	13.63	52.31	61.81	45.62	173.38	8.49	20.87	202.74	188.48	37.7
39 cents and up ----	40.4	302	28.09	130.83	86.85	51.30	297.07	14.83	27.60	339.50	324.61	64.9
Total or average 3/ ----------	100.0	393	19.94	81.41	68.40	45.22	214.98	11.52	21.05	247.54	232.56	46.5
Limestone Valley-Sand Mountain:												
Less than 15 cents -	---	---	---	---	---	---	---	---	---	---	---	---
15 to 17 cents -----	1.3	569	11.36	28.33	21.90	18.15	79.74	9.18	14.83	103.76	87.82	17.6
18 to 20 cents -----	10.3	624	9.47	33.03	28.04	22.46	93.01	5.25	17.63	115.89	100.71	20.1
21 to 23 cents -----	21.6	559	9.67	31.07	31.35	25.21	97.30	7.74	25.98	131.02	115.18	23.0
24 to 26 cents -----	18.2	516	11.74	34.07	32.30	25.68	103.78	8.79	27.67	140.23	124.71	24.9
27 to 29 cents -----	12.3	436	11.14	39.27	39.81	30.09	120.31	13.54	27.73	161.58	145.54	29.1
30 to 32 cents -----	6.6	468	13.67	53.95	30.97	36.37	134.97	11.51	25.19	171.66	156.30	31.3
33 to 35 cents -----	8.2	405	17.32	53.34	40.93	35.52	147.11	13.68	25.33	186.12	169.76	34.0
36 to 38 cents -----	4.4	380	24.36	65.32	38.63	32.56	160.86	22.37	20.94	204.17	187.89	37.6
39 cents and up ----	17.1	331	31.02	103.34	63.90	35.92	234.18	31.79	26.64	292.60	276.22	55.2
Total or average 3/ ----------	100.0	457	15.54	50.62	39.08	29.32	134.55	14.00	25.34	173.89	158.02	31.6

--Continued

Appendix table 6.--Distribution of upland cotton production, yields, and costs, by cost level, 20 regions, United States, 1969 --Continued

Regional costs per pound of lint	Percentage of production	Yield per harvested acre	Costs of producing a 500-lb. bale of lint and associated seed: Labor	Power and equipment	Total materials	Other direct 1/	Total direct	General overhead	Land	Total	Total costs per 500-lb. bale of lint 2/	Total costs per pound of lint
	Percent	Pounds	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Cents
Clay Hills:												
Less than 15 cents--	1.0	627	11.10	19.71	20.26	14.10	65.17	5.26	8.38	78.81	61.66	12.3
15 to 17 cents -----	---	---	---	---	---	---	---	---	---	---	---	---
18 to 20 cents -----	7.8	647	10.80	19.16	28.11	30.58	88.66	9.02	16.17	113.85	97.71	19.5
21 to 23 cents -----	12.0	570	10.74	31.47	22.00	36.57	100.77	8.43	17.71	126.91	112.19	22.4
24 to 26 cents -----	15.2	598	9.21	30.94	37.01	35.48	112.64	6.43	20.58	139.65	125.01	25.0
27 to 29 cents -----	11.0	628	22.48	35.67	26.48	38.32	122.96	16.90	15.07	154.94	140.14	28.0
30 to 32 cents -----	21.1	529	15.53	52.68	28.49	41.52	138.22	18.88	16.17	173.27	157.02	31.4
33 to 35 cents -----	1.9	413	35.53	35.28	32.63	39.29	142.74	22.85	20.59	186.17	172.28	34.5
36 to 38 cents -----	6.4	442	12.71	58.45	39.91	52.96	164.04	18.36	18.68	201.07	185.59	37.1
39 cents and up ----	23.6	380	34.60	78.49	41.36	49.47	203.92	44.09	15.26	263.27	247.81	49.6
Total or average 3/------	100.0	495	19.16	48.26	32.61	41.13	141.16	20.69	16.88	178.73	163.35	32.7
Black Belt:												
Less than 15 cents -	---	---	---	---	---	---	---	---	---	---	---	---
15 to 17 cents -----	4.2	693	23.08	21.03	13.82	17.71	75.65	13.46	7.43	96.54	81.82	16.4
18 to 20 cents -----	1.6	524	9.22	26.93	45.83	20.84	102.82	5.68	11.47	119.97	103.05	20.6
21 to 23 cents -----	12.9	659	7.06	33.40	33.41	28.60	102.46	15.04	14.54	132.04	114.44	22.9
24 to 26 cents -----	7.8	505	11.38	32.04	36.26	40.63	120.31	8.33	15.07	143.71	128.04	25.6
27 to 29 cents -----	11.4	592	21.09	49.98	49.99	19.53	140.60	6.07	12.62	159.29	140.10	28.0
30 to 32 cents -----	20.3	485	24.78	37.77	44.24	26.06	132.85	20.17	20.20	173.22	158.07	31.6
33 to 35 cents -----	10.3	383	25.86	47.13	45.57	33.31	151.86	13.77	21.92	187.55	173.00	34.6
36 to 38 cents -----	10.4	406	31.24	67.19	49.05	28.99	176.48	15.89	12.51	204.88	188.53	37.7
39 cents and up ----	21.1	305	41.50	98.17	68.07	56.41	264.15	23.04	20.58	307.77	292.75	58.6
Total or average 3/ -----	100.0	437	25.16	54.67	47.60	33.84	161.27	16.08	17.07	194.42	178.41	35.7

--Continued

Appendix table 6.--Distribution of upland cotton production, yields, and costs, by cost level, 20 regions, United States, 1969 --Continued

Regional costs per pound of lint	Percentage of production	Yield per harvested acre	Costs of producing a 500-lb. bale of lint and associated seed: Labor	Power and equipment	Total materials	Other direct 1/	Total direct	General overhead	Land	Total	Total costs per 500-lb. bale of lint 2/	Total costs per pound of lint
	Percent	Pounds	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Cents
Brown Loam:												
Less than 15 cents	1.2	916	10.88	20.91	16.48	20.37	68.64	2.72	20.86	92.22	74.50	14.9
15 to 17 cents	8.6	646	11.52	20.38	23.05	24.79	79.73	9.12	13.34	102.19	85.84	17.2
18 to 20 cents	10.1	642	12.10	32.64	19.53	24.78	89.07	8.21	15.55	112.82	97.15	19.4
21 to 23 cents	12.8	563	12.71	29.57	22.79	35.75	100.82	8.56	20.23	129.61	112.89	22.6
24 to 26 cents	19.5	546	17.17	32.96	25.11	36.05	111.30	9.30	22.52	143.12	126.50	25.3
27 to 29 cents	14.2	585	15.34	41.00	29.92	36.06	122.31	11.61	25.73	159.65	143.31	28.7
30 to 32 cents	11.2	471	24.07	50.22	33.26	28.49	136.03	11.44	25.20	172.68	156.17	31.2
33 to 35 cents	4.3	499	10.96	57.59	38.41	42.75	149.70	14.91	22.05	186.67	169.99	34.0
36 to 38 cents	6.3	408	37.52	41.60	42.54	33.75	155.41	18.96	27.90	202.27	186.70	37.3
39 cents and up	11.8	374	37.39	138.13	39.54	32.75	247.81	35.58	25.45	308.84	292.97	58.6
Total or average 3/	100.0	519	19.52	48.45	28.95	32.67	129.59	13.55	22.15	165.30	148.98	29.8
Mississippi Delta:												
Less than 15 cents	4.1	970	9.89	14.83	14.23	28.34	67.29	5.81	10.41	83.50	70.04	14.0
15 to 17 cents	1.3	835	9.60	32.52	15.45	25.32	82.90	14.17	8.28	105.35	87.42	17.5
18 to 20 cents	17.4	707	9.27	27.49	21.87	27.76	86.39	8.58	19.43	114.39	98.17	19.6
21 to 23 cents	15.7	691	16.99	24.94	23.33	28.09	93.35	10.59	24.56	128.50	112.01	22.4
24 to 26 cents	12.6	560	17.66	36.20	24.27	32.52	110.65	12.82	21.26	144.73	128.69	25.7
27 to 29 cents	12.1	546	19.71	41.55	24.37	34.59	120.23	13.15	22.75	156.14	140.66	28.1
30 to 32 cents	13.0	555	20.99	50.25	30.80	31.73	133.78	15.59	22.32	171.69	155.09	31.0
33 to 35 cents	8.2	575	24.54	63.48	35.49	31.14	154.66	12.20	20.18	187.03	170.27	34.1
36 to 38 cents	6.8	415	26.20	60.75	37.24	35.01	159.21	16.43	26.18	201.81	186.81	37.4
39 cents and up	8.8	333	32.52	91.34	74.39	35.41	233.66	22.24	29.89	285.79	270.05	54.0
Total or average 3/	100.0	559	18.92	43.68	30.59	31.22	124.41	13.12	22.22	159.75	143.72	28.7

--Continued

Appendix table 6.--Distribution of upland cotton production, yields, and factor costs, by cost level, 20 regions, United States, 1969

Regional costs per pound of lint	Percentage of production	Yield per harvested acre	Costs of producing a 500-lb. bale of lint and associated seed: Labor	Power and equipment	Total materials	Other direct 1/	Total direct	General overhead	Land	Total	Total costs per 500-lb. bale of lint 2/	Total costs per pound of lint
	Percent	Pounds	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Cents
Northeast Arkansas:												
Less than 15 cents	---	---	---	---	---	---	---	---	---	---	---	---
15 to 17 cents	1.8	539	7.57	24.74	17.33	32.08	81.72	6.01	15.28	103.01	86.54	17.3
18 to 20 cents	9.8	580	9.57	25.41	17.06	30.22	82.24	5.95	27.09	115.29	99.13	19.8
21 to 23 cents	16.2	539	11.99	31.28	22.53	29.34	95.14	7.61	25.56	128.32	112.57	22.5
24 to 26 cents	14.9	510	18.01	38.25	21.02	32.40	109.68	7.67	26.68	144.02	127.47	25.5
27 to 29 cents	21.9	501	24.39	44.25	21.72	34.31	124.67	10.89	23.60	159.17	142.77	28.6
30 to 32 cents	15.0	496	28.05	53.26	22.89	33.29	137.49	10.80	23.98	172.27	155.90	31.2
33 to 35 cents	7.2	490	26.18	67.25	30.69	32.74	156.85	12.88	20.16	189.89	172.89	34.6
36 to 38 cents	5.6	439	30.13	61.60	31.49	39.47	162.69	16.86	25.11	204.66	187.51	37.5
39 cents and up	7.6	385	35.99	89.73	38.43	36.46	200.61	24.21	23.43	248.25	231.69	46.3
Total or average 3/	100.0	496	21.54	46.48	23.84	32.97	124.82	10.78	24.45	160.06	143.67	28.7
Black Prairie:												
Less than 15 cents	---	---	---	---	---	---	---	---	---	---	---	---
15 to 17 cents	3.7	313	10.79	20.56	17.62	19.74	68.71	8.29	24.15	101.15	87.76	17.6
18 to 20 cents	15.4	294	12.02	20.81	24.91	22.19	79.92	9.28	22.98	112.18	97.19	19.4
21 to 23 cents	7.7	234	16.48	32.64	23.34	21.28	93.73	9.86	24.85	128.44	112.40	22.5
24 to 26 cents	13.4	255	19.86	35.02	27.74	24.44	107.07	8.26	27.09	142.41	128.27	25.7
27 to 29 cents	9.1	187	23.17	38.46	29.01	26.08	116.72	11.00	28.59	156.31	141.61	28.3
30 to 32 cents	9.5	168	27.73	45.38	32.66	23.23	129.00	17.84	26.06	172.90	157.77	31.6
33 to 35 cents	5.8	179	32.11	41.52	37.27	31.79	142.69	15.90	27.87	186.46	171.92	34.4
36 to 38 cents	6.0	136	36.48	51.33	40.36	31.00	159.17	15.93	29.41	204.52	188.47	37.7
39 cents and up	29.4	126	55.03	115.34	64.51	34.51	269.39	30.42	39.50	339.30	323.49	64.7
Total or average 3/	100.0	176	31.70	62.10	40.06	28.13	161.99	17.41	30.71	210.11	194.94	39.0

--Continued

Appendix table 6.--Distribution of upland cotton production, yields, and costs, by cost level, 20 regions, United States, 1969--Continued

Regional costs per pound of lint	Percentage of production	Yield per harvested acre	Costs of producing a 500-lb. bale of lint and associated seed: Labor	Power and equipment	Total materials	Other direct 1/	Total direct	General overhead	Land	Total	Total costs per 500-lb. bale of lint 2/	Total costs per pound of lint
	Percent	Pounds	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Cents
Coastal Prairie:												
Less than 15 cents--	2.1	369	7.53	19.58	6.76	17.86	51.73	6.03	25.61	83.36	66.57	13.3
15 to 17 cents -----	1.9	355	8.69	28.66	16.18	16.85	70.37	4.02	25.22	99.60	85.93	17.2
18 to 20 cents -----	14.5	388	10.59	27.20	20.71	20.65	79.15	9.86	24.33	113.35	99.41	19.9
21 to 23 cents -----	10.7	395	12.58	34.43	19.04	25.25	91.30	11.15	23.58	126.04	112.59	22.5
24 to 26 cents -----	16.9	340	10.35	34.81	27.16	33.62	105.93	10.18	27.43	143.53	129.72	25.9
27 to 29 cents -----	14.9	316	24.36	39.90	25.29	29.28	118.83	12.95	26.28	158.06	144.02	28.8
30 to 32 cents -----	5.7	323	14.36	53.10	27.48	24.48	119.42	16.09	31.75	167.26	154.77	31.0
33 to 35 cents -----	9.3	283	20.55	60.47	34.03	27.74	142.78	14.08	28.37	185.22	172.11	34.4
36 to 38 cents -----	4.5	255	23.12	52.99	42.38	37.15	155.63	14.72	29.18	199.54	186.31	37.3
39 cents and up ----	19.5	209	43.17	119.45	57.79	36.92	257.33	22.31	33.93	313.57	299.20	59.8
Total or average 3/------	100.0	294	20.89	54.96	32.04	29.30	137.19	13.88	28.03	179.10	165.28	33.1
Lower Rio Grande Valley:												
Less than 15 cents--	---	---	---	---	---	---	---	---	---	---	---	---
15 to 17 cents -----	1.1	581	13.11	21.47	9.91	25.61	70.10	7.07	23.21	100.38	87.76	17.6
18 to 20 cents------	7.7	561	12.76	21.81	10.27	37.33	82.17	9.20	20.63	112.00	97.85	19.6
21 to 23 cents -----	8.8	644	9.95	25.34	15.57	43.02	93.89	6.88	23.65	124.42	110.25	22.0
24 to 26 cents------	21.3	538	17.79	24.49	20.34	47.83	110.44	8.79	23.90	143.13	128.84	25.8
27 to 29 cents -----	15.1	588	19.03	34.63	23.04	45.68	122.38	9.71	25.79	157.87	144.36	28.9
30 to 32 cents------	9.5	484	30.33	29.96	25.35	43.26	128.90	8.11	33.36	170.36	156.10	31.2
33 to 35 cents -----	8.7	585	26.44	33.62	32.17	55.48	147.71	11.23	27.14	186.09	172.11	34.4
36 to 38 cents -----	7.3	436	27.02	48.48	32.17	53.72	161.38	18.91	22.57	202.87	188.56	37.7
39 cents and up-----	20.5	425	43.15	67.10	43.17	56.67	210.09	19.85	27.71	257.66	243.61	48.7
Total or average 3/-----	100.0	512	24.33	36.92	26.44	47.53	135.22	11.82	25.39	172.43	158.74	31.7

--Continued

Appendix table 6.--Distribution of upland cotton production, yields, and factor costs, by cost level, 20 regions, United States, 1969 --Continued

Regional costs per pound of lint	Percentage of production	Yield per harvested acre	Costs of producing a 500-lb. bale of lint and associated seed: Labor	Power and equipment	Total materials	Other direct 1/	Total direct	General overhead	Land	Total	Total costs per 500-lb. bale of lint 2/	Total costs per pound of lint
	Percent	Pounds	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Cents
Rolling Plains:												
Less than 15 cents--	11.8	391	6.28	15.67	7.28	28.56	57.79	8.95	18.34	85.07	64.51	12.9
15 to 17 cents -----	12.2	365	9.85	21.47	9.51	29.97	70.79	9.24	23.01	103.05	82.82	16.6
18 to 20 cents -----	11.6	318	15.39	24.26	12.17	31.15	82.97	9.18	25.49	117.64	97.73	19.5
21 to 23 cents -----	15.9	324	17.56	33.66	10.08	32.89	94.19	10.77	27.06	132.02	113.32	22.7
24 to 26 cents -----	18.0	335	19.55	36.13	13.12	35.30	104.11	10.15	29.54	143.80	125.82	25.2
27 to 29 cents -----	4.4	206	24.44	36.37	16.41	41.19	118.41	10.08	29.67	158.16	139.15	27.8
30 to 32 cents -----	11.5	263	23.53	50.44	17.71	39.79	131.48	14.20	30.21	175.89	156.45	31.3
33 to 35 cents -----	4.3	215	26.64	57.15	16.36	38.08	138.22	19.98	31.50	189.71	170.37	34.1
36 to 38 cents -----	2.9	219	37.20	60.20	18.11	35.02	150.52	14.09	42.25	206.86	188.65	37.7
39 cents and up ----	7.4	154	65.52	102.97	30.19	52.65	251.33	26.22	43.14	320.70	300.13	60.0
Total or average 3/-----	100.0	284	21.30	39.32	14.08	35.34	110.04	12.40	28.50	150.94	131.58	26.3
High Plains:												
Less than 15 cents--	3.2	400	8.07	12.14	6.73	30.39	57.33	8.08	23.90	89.31	69.71	13.9
15 to 17 cents -----	7.1	422	11.31	19.55	9.01	30.56	70.45	8.02	24.62	103.09	82.81	16.6
18 to 20 cents -----	13.0	411	12.65	20.18	12.72	39.20	84.76	8.86	22.84	116.45	97.68	19.5
21 to 23 cents -----	20.2	389	17.21	30.13	15.07	38.19	100.61	9.83	23.97	134.40	113.95	22.8
24 to 26 cents -----	10.8	383	18.67	32.81	18.45	39.56	109.49	11.80	26.23	147.52	127.48	25.5
27 to 29 cents -----	10.2	364	20.18	35.56	22.50	44.74	122.99	10.79	29.12	162.91	142.46	28.5
30 to 32 cents -----	9.6	322	28.22	41.66	21.58	44.84	136.30	13.62	26.11	176.02	156.52	31.3
33 to 35 cents -----	2.2	312	24.38	44.25	35.64	46.19	150.46	19.11	29.06	198.63	175.21	35.0
36 to 38 cents -----	6.6	334	40.53	55.63	20.45	45.86	162.47	13.38	30.98	206.83	186.57	37.3
39 cents and up ----	17.1	238	51.01	84.20	41.39	84.05	260.65	26.80	32.59	320.04	299.52	59.9
Total or average 3/-----	100.0	339	25.47	41.62	21.99	48.29	137.37	14.04	27.05	178.46	158.34	31.7

--Continued

Appendix table 6.--Distribution of upland cotton production, yields, and factor costs, by cost level, 20 regions, United States, 1969 --Continued

Regional costs per pound of lint	Percentage of production	Yield per harvested acre	Costs of producing a 500-lb. bale of lint and associated seed: Labor	Power and equipment	Total materials	Other direct 1/	Total direct	General overhead	Land	Total	Total costs per 500-lb. bale of lint 2/	Total costs per pound of lint
	Percent	Pounds	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Cents
San Joaquin Valley:												
Less than 15 cents--	0.5	1,061	12.52	14.22	5.63	28.77	61.14	14.34	12.67	88.15	73.15	14.6
15 to 17 cents -----	2.0	927	12.41	19.20	14.46	33.17	79.25	11.62	19.67	110.54	89.23	17.8
18 to 20 cents -----	3.9	983	17.62	25.75	13.04	29.85	86.26	13.05	18.64	117.95	97.84	19.6
21 to 23 cents -----	8.4	942	15.73	22.02	16.10	43.58	97.42	12.73	20.23	130.39	110.87	22.2
24 to 26 cents -----	14.4	916	23.62	23.46	18.07	40.27	105.41	14.34	23.75	143.51	126.17	25.2
27 to 29 cents -----	22.8	895	23.88	26.53	19.56	51.44	121.42	12.35	27.07	160.84	142.92	28.6
30 to 32 cents -----	6.2	822	28.67	29.07	20.91	51.32	129.96	15.44	28.46	173.86	155.72	31.1
33 to 35 cents -----	12.9	748	30.03	38.08	22.71	49.25	140.08	15.45	35.22	190.75	172.47	34.5
36 to 38 cents -----	6.7	816	41.47	35.48	32.63	47.61	157.20	16.66	30.79	204.65	186.06	37.2
39 cents and up ----	22.2	696	45.23	68.11	28.77	63.83	205.94	27.95	33.57	267.46	249.31	49.9
Total or average 3/------	100.0	818	29.63	36.94	22.05	50.05	138.66	17.03	28.30	184.00	165.73	33.1
Southern California-Southwest Arizona:												
Less than 15 cents--	---	---	---	---	---	---	---	---	---	---	---	---
15 to 17 cents -----	2.0	1,697	10.48	8.80	11.28	48.09	78.65	7.49	9.66	95.80	78.02	15.6
18 to 20 cents -----	1.3	1,815	13.43	21.01	20.29	31.60	86.34	9.71	14.41	110.45	95.23	19.0
21 to 23 cents -----	10.0	1,585	10.62	18.02	31.57	46.41	106.63	8.77	13.14	128.55	112.79	22.6
24 to 26 cents -----	12.0	1,264	13.40	18.14	35.88	49.01	116.44	8.67	19.19	144.29	128.34	25.7
27 to 29 cents -----	23.4	1,166	23.80	26.26	29.07	47.94	127.07	11.88	22.05	161.00	145.03	29.0
30 to 32 cents -----	9.1	1,201	27.81	24.81	35.46	48.94	137.02	10.33	25.59	172.95	155.91	31.2
33 to 35 cents -----	21.5	1,084	23.12	38.66	34.02	63.15	158.95	13.62	16.03	188.61	173.04	34.6
36 to 38 cents -----	4.3	898	40.43	21.93	38.28	64.53	165.18	15.44	26.89	207.50	190.76	38.2
39 cents and up ----	16.4	841	33.34	47.94	52.25	83.36	216.89	19.77	27.14	263.80	247.08	49.4
Total or average 3/------	100.0	1,110	23.31	29.89	35.48	57.57	146.23	12.74	20.52	179.49	163.35	32.7

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Appendix table 6.--Distribution of upland cotton production, yields, and costs, by cost level, 20 regions, United States, 1969--Continued

Regional costs per pound of lint	Percentage of production	Yield per harvested acre	Costs of producing a 500-lb. bale of lint and associated seed: Labor	Power and equipment	Total materials	Other direct 1/	Total direct	General overhead	Land	Total	Total costs per 500-lb. bale of lint 2/	Total costs per pound of lint
	Percent	Pounds	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Cents
Central Arizona:												
Less than 15 cents--	---	---	---	---	---	---	---	---	---	---	---	---
15 to 17 cents -----	---	---	---	---	---	---	---	---	---	---	---	---
18 to 20 cents -----	1.0	1,082	7.17	9.05	16.69	46.12	79.03	17.21	17.60	113.85	97.51	19.5
21 to 23 cents -----	---	---	---	---	---	---	---	---	---	---	---	---
24 to 26 cents -----	17.7	1,031	19.63	25.43	21.73	48.09	114.89	13.03	18.50	146.41	131.63	26.3
27 to 29 cents -----	8.6	1,065	25.04	21.19	23.36	54.26	123.85	15.04	17.94	156.83	141.75	28.4
30 to 32 cents -----	15.5	866	16.92	24.07	24.64	68.56	134.18	9.04	28.18	171.40	156.02	31.2
33 to 35 cents -----	19.9	1,085	23.21	34.96	25.09	71.67	154.93	11.08	18.95	184.95	170.50	34.1
36 to 38 cents -----	6.6	996	30.59	40.71	23.20	62.66	157.16	21.52	24.71	203.39	187.47	37.5
39 cents and up ----	30.7	941	35.36	41.45	30.87	107.79	215.47	19.99	19.63	255.08	238.76	47.8
Total or average 3/	100.0	955	25.82	32.51	25.84	75.79	159.96	14.94	20.79	195.68	180.29	36.1
High Southern Desert:												
Less than 15 cents--	---	---	---	---	---	---	---	---	---	---	---	---
15 to 17 cents -----	1.1	1,549	12.77	37.73	3.81	34.10	88.40	8.03	9.91	106.35	87.41	17.5
18 to 20 cents -----	5.4	1,055	18.23	19.83	7.91	40.24	86.22	11.69	14.25	112.16	95.89	19.2
21 to 23 cents -----	17.4	1,118	19.23	30.86	9.91	43.86	103.86	10.45	17.99	132.29	114.26	22.9
24 to 26 cents -----	11.9	1,078	21.02	34.89	9.93	47.78	113.63	10.39	24.34	148.36	129.96	26.0
27 to 29 cents -----	11.4	873	33.25	39.91	9.31	45.15	127.62	15.06	18.83	161.51	143.48	28.7
30 to 32 cents -----	8.7	784	27.46	36.37	12.99	58.32	135.15	13.76	27.02	175.92	159.02	31.8
33 to 35 cents -----	8.7	735	31.89	43.79	15.48	58.57	149.72	19.27	23.03	192.02	173.50	34.7
36 to 38 cents -----	10.0	803	36.51	44.03	22.49	64.31	167.34	10.14	24.23	201.72	184.21	36.8
39 cents and up ----	25.4	683	46.03	93.69	20.08	69.21	229.01	22.15	22.72	273.89	255.09	51.0
Total or average 3/ ------	100.0	843	31.29	50.85	14.26	55.21	151.61	15.01	21.60	188.22	170.14	34.0

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Appendix table 6.--Distribution of upland cotton production, yields, and costs, by cost level, 20 regions, United States, 1969--Continued

Regional costs per pound of lint	Percentage of production	Yield per harvested acre	Costs of producing a 500-lb. bale of lint and associated seed								Total costs per 500-lb. bale of lint 2/	Total costs per pound of lint
			Labor	Power and equipment	Total materials	Other direct 1/	Total direct	General overhead	Land	Total		
	Percent	Pounds	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Cents
Upper Rio Grande-Pecos Valleys:												
Less than 15 cents --	1.6	1,027	9.59	12.27	2.29	29.00	53.15	14.59	15.64	83.38	61.82	12.4
15 to 17 cents ------	1.9	780	13.91	40.63	2.74	22.94	80.23	6.91	19.31	106.45	86.96	17.4
18 to 20 cents ------	4.6	871	16.40	18.43	7.95	36.62	79.39	9.75	29.70	118.84	99.73	19.9
21 to 23 cents ------	10.9	788	18.72	30.45	12.62	34.91	96.70	15.88	19.00	131.57	111.07	22.2
24 to 26 cents ------	4.5	613	20.63	42.62	8.92	32.94	105.11	13.69	28.12	146.92	127.56	25.5
27 to 29 cents ------	13.5	635	23.57	36.23	15.03	38.98	113.82	15.70	31.86	161.38	141.48	28.3
30 to 32 cents ------	14.1	718	33.59	40.67	10.91	42.84	128.01	15.32	31.38	174.71	156.48	31.3
33 to 35 cents ------	12.4	602	35.71	49.55	16.98	41.32	143.56	16.06	29.70	189.32	171.89	34.4
36 to 38 cents ------	9.9	606	30.65	52.69	13.95	55.74	153.02	21.73	31.85	206.60	187.13	37.4
39 cents and up -----	26.6	479	48.32	88.35	25.49	67.36	229.52	34.25	38.40	302.17	283.61	56.7
Total or average 3/ ----------	100.0	603	32.41	52.62	16.09	47.75	148.87	20.72	31.14	200.72	181.74	36.3
Trans Pecos:												
Less than 15 cents --	---	---	---	---	---	---	---	---	---	---	---	---
15 to 17 cents ------	---	---	---	---	---	---	---	---	---	---	---	---
18 to 20 cents-------	0.8	614	23.30	21.20	9.10	42.43	96.03	16.30	9.37	121.71	102.58	20.5
21 to 23 cents ------	1.8	905	22.08	30.18	15.19	31.05	98.50	10.52	27.67	136.68	115.56	23.1
24 to 26 cents ------	3.2	686	34.10	22.43	23.70	39.94	120.16	13.13	11.25	144.53	127.10	25.4
27 to 29 cents ------	3.0	773	36.62	22.43	20.22	50.51	129.77	11.82	14.26	155.86	137.95	27.6
30 to 32 cents ------	7.7	751	24.72	29.93	19.38	70.94	144.97	13.41	21.02	179.41	160.14	32.0
33 to 35 cents ------	14.5	879	20.86	27.44	30.97	73.19	152.45	22.09	17.57	192.11	174.83	35.0
36 to 38 cents ------	6.6	676	31.43	23.48	30.84	74.96	160.71	25.36	16.82	202.89	184.75	37.0
39 cents and up -----	62.4	596	41.80	45.72	35.65	111.70	234.87	30.82	24.67	290.36	271.90	54.4
Total or average 3/ ----------	100.0	642	35.90	38.59	32.01	94.78	201.28	26.26	22.06	249.61	231.28	46.3
U.S. average ----------	---	455	23.20	44.84	29.38	41.10	138.51	14.40	24.40	177.31	160.22	32.0

1/ Includes the cost of irrigation, ginning, custom services, and interest on operating capital.
2/ Total cost of producing a 500-lb. bale of lint and associated seed minus the value of associated seed.
3/ Includes cost of operations on cotton not harvested.

Note: Totals do not necessarily add because of rounding.
--- = no data.

Appendix table 7.--Production costs of upland cotton per 500-pound bale of lint, by cost item, 20 regions, United States, 1969

Item	Southern Piedmont		Eastern Coastal Plains		Southern Coastal Plains	
	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Labor	24.66	12.0	24.33	10.5	19.94	8.1
Power and equipment	56.89	27.8	69.57	29.9	81.41	32.9
Materials:						
Seed	4.31	2.1	6.00	2.6	7.80	3.2
Fertilizer	26.45	12.9	31.05	13.4	29.59	12.0
Herbicides	8.23	4.0	7.17	3.1	8.72	3.5
Insecticides and fungicides	13.13	6.4	19.78	8.5	19.78	8.0
Defoliants	1.94	.9	2.61	1.1	2.42	1.0
Other chemicals	.05	2/	---	---	.09	2/
Total materials	54.11	26.4	66.60	28.7	68.40	27.6
Ginning, bagging, and ties	16.19	7.9	19.37	8.3	16.00	6.5
Custom services	10.11	4.9	13.36	5.7	23.95	9.7
Irrigation	---	---	---	---	---	---
Interest on operating capital	3.83	1.9	4.60	2.0	5.27	2.1
Total direct costs 3/	165.80	81.0	197.84	85.1	214.98	86.8
Overhead	23.24	11.3	14.51	6.2	11.52	4.7
Land	15.78	7.7	20.08	8.6	21.05	8.5
Total costs, lint, and associated seed	204.81	100.0	232.42	100.0	247.54	100.0
Less value of seed	16.86	---	17.07	---	14.98	---
Costs per bale of lint 4/	187.95	---	215.35	---	232.56	---
Costs per pound of lint	.376	---	.431	---	.465	---
Receipts per pound of lint 5/	.374	---	.395	---	.402	---

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Appendix table 7.--Production costs of upland cotton per 500-pound bale of lint, by cost item, 20 regions, United States, 1969--Continued

Item	Limestone Valley-Sand Mountain		Clay Hills		Black Belt	
	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Labor	15.54	8.9	19.16	10.7	25.16	12.9
Power and equipment	50.62	29.1	48.26	27.0	54.67	28.1
Materials:						
Seed	3.95	2.3	3.43	1.9	3.98	2.0
Fertilizer	19.13	11.0	16.06	9.0	21.24	10.9
Herbicides	6.60	3.8	5.96	3.3	7.96	4.1
Insecticides and fungicides	8.47	4.9	6.54	3.7	13.62	7.0
Defoliants	.84	.5	.60	.3	.79	.4
Other chemicals	.10	.1	.01	2/	---	---
Total materials	39.08	22.5	32.61	18.2	47.60	24.5
Ginning, bagging, and ties	16.32	9.4	17.42	9.7	16.00	8.2
Custom services	9.92	5.7	20.54	11.5	14.14	7.3
Irrigation	.07	2/	---	---	---	---
Interest on operating capital	3.01	1.7	3.17	1.8	3.70	1.9
Total direct costs 3/	134.55	77.4	141.16	79.0	161.27	82.9
Overhead	14.00	8.1	20.69	11.6	16.08	8.3
Land	25.34	14.6	16.88	9.4	17.07	8.8
Total costs, lint, and associated seed	173.89	100.0	178.73	100.0	194.42	100.0
Less value of seed	15.86	---	15.38	---	16.01	---
Costs per pound of lint 4/	158.02	---	163.35	---	178.41	---
Costs per pound of lint	.316	---	.327	---	.357	---
Receipts per pound of lint 5/	.359	---	.367	---	.366	---

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Appendix table 7.--Production costs of upland cotton per 500-pound bale of lint, by cost item, 20 regions, United States, 1969--Continued

Item	Brown Loam		Mississippi Delta		Northeast Arkansas	
	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Labor	19.52	11.8	18.92	11.8	21.54	13.5
Power and equipment	48.45	29.3	43.68	27.3	46.48	29.0
Materials:						
Seed	3.15	1.9	3.33	2.1	3.57	2.2
Fertilizer	15.00	9.1	9.92	6.2	11.20	7.0
Herbicides	5.40	3.3	6.31	3.9	5.59	3.5
Insecticides and fungicides	4.42	2.7	9.38	5.9	2.34	1.5
Defoliants	.90	.5	1.21	.8	.81	.5
Other chemicals	.08	2/	.44	.3	.34	.2
Total materials	28.95	17.5	30.59	19.1	23.84	14.9
Ginning, bagging, and ties	19.90	12.0	19.61	12.3	22.75	14.2
Custom services	10.07	6.1	8.25	5.2	6.57	4.1
Irrigation	---	---	.81	.5	1.17	.7
Interest on operating capital	2.70	1.6	2.55	1.6	2.48	1.5
Total direct costs 3/	129.59	78.4	124.41	77.9	124.82	78.0
Overhead	13.55	8.2	13.12	8.2	10.78	6.7
Land	22.15	13.4	22.22	13.9	24.45	15.3
Total costs, lint, and associated seed	165.30	100.0	159.75	100.0	160.06	100.0
Less value of seed	16.32	---	16.03	---	16.39	---
Costs per bale of lint 4/	148.98	---	143.72	---	143.67	---
Costs per pound of lint	.298	---	.287	---	.287	---
Receipts per pound of lint 5/	.347	---	.350	---	.326	---

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Appendix table 7.--Production costs of upland cotton per 500-pound bale of lint, by cost item, 20 regions, United States, 1969--Continued

Item	Black Prairie		Coastal Prairie		Lower Rio Grande Valley	
	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Labor	31.70	15.1	20.89	11.7	24.33	14.1
Power and equipment	62.10	29.6	54.96	30.7	36.92	21.4
Materials:						
Seed	9.60	4.6	5.63	3.1	3.30	1.9
Fertilizer	14.34	6.8	14.36	8.0	7.81	4.5
Herbicides	5.46	2.6	5.52	3.1	3.13	1.8
Insecticides and fungicides	5.69	2.7	5.35	3.0	10.41	6.0
Defoliants	4.94	2.4	1.16	.6	1.79	1.0
Other chemicals	.03	2/	.02	2/	---	---
Total materials	40.06	19.1	32.04	17.9	26.44	15.3
Ginning, bagging, and ties	18.14	8.6	16.29	9.1	21.32	12.4
Custom services	5.98	2.8	9.22	5.1	18.60	10.8
Irrigation	.21	.1	.79	.4	4.67	2.7
Interest on operating capital	3.80	1.8	3.00	1.7	2.94	1.7
Total direct costs 3/	161.99	77.1	137.19	76.6	135.22	78.4
Overhead	17.41	8.3	13.88	7.7	11.82	6.9
Land	30.71	14.6	28.03	15.7	25.39	14.7
Total costs, lint, and associated seed	210.11	100.0	179.10	100.0	172.43	100.0
Less value of seed	15.17	---	13.83	---	13.69	---
Costs per bale of lint 4/	194.94	---	165.28	---	158.74	---
Costs per pound of lint	.390	---	.331	---	.317	---
Receipts per pound of lint 5/	.417	---	.365	---	.337	---

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Appendix table 7.--Production costs of upland cotton per 500-pound bale of lint, by cost item, 20 regions, United States, 1969--Continued

Item	Rolling Plains		High Plains		San Joaquin Valley	
	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Labor	21.30	14.1	25.47	14.3	29.63	16.1
Power and equipment	39.32	26.1	41.62	23.3	36.94	20.1
Materials:						
Seed	5.49	3.6	8.26	4.6	2.52	1.4
Fertilizer	2.56	1.7	8.37	4.7	9.02	4.9
Herbicides	3.44	2.3	4.13	2.3	2.03	1.1
Insecticides and fungicides	2.13	1.4	.75	.4	6.41	3.5
Defoliants	.46	.3	.46	.3	1.65	.9
Other chemicals	---	---	.01	2/	.43	.2
Total materials	14.08	9.3	21.99	12.3	22.05	12.0
Ginning, bagging, and ties	19.68	13.0	19.64	11.0	20.84	11.3
Custom services	9.01	6.0	4.50	2.5	11.81	6.4
Irrigation	4.35	2.9	21.53	12.1	14.67	8.0
Interest on operating capital	2.30	1.5	2.62	1.5	2.73	1.5
Total direct costs 3/	110.04	72.9	137.37	77.0	138.66	75.4
Overhead	12.40	8.2	14.04	7.9	17.03	9.3
Land	28.50	18.9	27.05	15.2	28.30	15.4
Total costs, lint, and associated seed	150.94	100.0	178.46	100.0	184.00	100.0
Less value of seed	19.37	---	20.12	---	18.27	---
Costs per bale of lint 4/	131.58	---	158.34	---	165.73	---
Costs per pound of lint	.263	---	.317	---	.331	---
Receipts per pound of lint 5/	.345	---	.357	---	.387	---

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Appendix table 7.--Production costs of upland cotton per 500-pound bale of lint, by cost item, 20 regions, United States, 1969--Continued

Item	Southern California-Southwest Arizona		Central Arizona		High Southern Desert	
	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Labor	23.31	13.0	25.82	13.2	31.29	16.6
Power and equipment	29.89	16.7	32.51	16.6	50.85	27.0
Materials:						
Seed	1.68	.9	1.74	.9	2.19	1.2
Fertilizer	12.26	6.8	8.78	4.5	7.67	4.1
Herbicides	3.56	2.0	2.66	1.4	2.49	1.3
Insecticides and fungicides	15.57	8.7	10.96	5.6	1.72	.9
Defoliants	2.03	1.1	1.30	.7	.12	.1
Other chemicals	.38	.2	.39	.2	.08	2/
Total materials	35.48	19.8	25.84	13.2	14.26	7.6
Ginning, bagging, and ties	19.80	11.0	18.42	9.4	18.54	9.8
Custom services	21.51	12.0	22.64	11.6	4.98	2.6
Irrigation	13.00	7.2	31.69	16.2	29.13	15.5
Interest on operating capital	3.26	1.8	3.04	1.6	2.56	1.4
Total direct costs 3/	146.23	81.5	159.96	81.7	151.61	80.5
Overhead	12.74	7.1	14.94	7.6	15.01	8.0
Land	20.52	11.4	20.79	10.6	21.60	11.5
Total costs, lint, and associated seed	179.49	100.0	195.68	100.0	188.22	100.0
Less value of seed	16.14	---	15.40	---	18.08	---
Costs per bale of lint 4/	163.35	---	180.29	---	170.14	---
Costs per pound of lint	.327	---	.361	---	.340	---
Receipts per pound of lint 5/	.340	---	.345	---	.350	---

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Appendix table 7.--Production costs of upland cotton per 500-pound bale of lint, by cost item, 20 regions, United States, 1969--Continued

Item	Upper Rio Grande-Pecos Valleys		Trans Pecos	
	Average costs 1/	Percentage of total costs 1/	Average costs 1/	Percentage of total costs 1/
	Dollars	Percent	Dollars	Percent
Labor	32.41	16.1	35.90	14.4
Power and equipment	52.62	26.2	38.59	15.5
Materials:				
Seed	3.39	1.7	3.99	1.6
Fertilizer	6.58	3.3	14.01	5.6
Herbicides	2.96	1.5	2.66	1.1
Insecticides and fungicides	2.69	1.3	10.76	4.3
Defoliants	.28	.1	.60	.2
Other chemicals	.18	.1	---	---
Total materials	16.09	8.0	32.01	12.8
Ginning, bagging, and ties	18.04	9.0	19.69	7.9
Custom services	5.42	2.7	15.66	6.3
Irrigation	21.60	10.8	55.94	22.4
Interest on operating capital	2.69	1.3	3.49	1.4
Total direct costs 3/	148.87	74.2	201.28	80.6
Overhead	20.72	10.3	26.26	10.5
Land	31.14	15.5	22.06	8.8
Total costs, lint, and associated seed	200.72	100.0	249.61	100.0
Less value of seed	18.98	---	18.33	---
Costs per bale of lint 4/	181.74	---	231.28	---
Costs per pound of lint	.363	---	.463	---
Receipts per pound of lint 5/	.381	---	.435	---

1/ Totals do not necessarily add because of rounding.
2/ Less than 0.05 percent.
3/ Includes all cost items other than land and general overhead.
4/ Total cost of producing a bale of lint and associated seed minus the value of associated seed.
5/ Includes support payments.
Note: --- = no data.

Appendix table 8.--Production of upland cotton cumulated by variable cost level, 20 regions, United States, 1969

Variable costs per pound of lint	Southern Piedmont	Eastern Coastal Plains	Southern Coastal Plains	Limestone Valley -Sand Mountain	Clay Hills
	Percent	Percent	Percent	Percent	Percent
Less than 15 cents	23.1	14.4	4.8	42.7	26.0
Less than 18 cents	30.8	19.9	17.5	67.4	55.7
Less than 21 cents	47.3	44.0	30.7	78.6	72.5
Less than 24 cents	63.2	61.6	49.3	90.5	88.0
Less than 27 cents	81.2	73.1	63.3	93.2	89.8
Less than 30 cents	89.1	84.3	72.7	94.8	93.7
Less than 33 cents	91.3	86.9	82.4	95.5	95.8
Less than 36 cents	93.5	87.7	85.6	96.2	97.6
Less than 39 cents	98.0	91.3	88.5	96.6	100.0
All levels of cost	100.0	100.0	100.0	100.0	100.0

	Black Belt	Brown Loam	Mississippi Delta	Northeast Arkansas	Black Prairie
	Percent	Percent	Percent	Percent	Percent
Less than 15 cents	21.3	43.5	52.9	42.7	45.7
Less than 18 cents	33.0	68.3	71.4	68.4	62.3
Less than 21 cents	51.5	82.3	84.7	86.8	71.8
Less than 24 cents	71.3	92.0	91.1	94.3	80.6
Less than 27 cents	78.8	94.8	96.7	97.0	85.2
Less than 30 cents	87.6	97.0	97.1	98.3	89.3
Less than 33 cents	89.6	98.4	98.2	99.5	90.4
Less than 36 cents	90.2	98.9	98.4	99.8	92.9
Less than 39 cents	95.1	99.3	98.4	99.8	93.2
All levels of cost	100.0	100.0	100.0	100.0	100.0

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Appendix table 8.--Production of upland cotton cumulated by variable cost level, 20 regions, United States, 1969--Continued

Variable costs per pound of lint	Coastal Prairie	Lower Rio Grande Valley	Rolling Plains	High Plains	San Joaquin Valley
	Percent	Percent	Percent	Percent	Percent
Less than 15 cents	52.5	23.1	68.7	59.3	22.8
Less than 18 cents	66.0	50.4	86.8	70.8	44.9
Less than 21 cents	80.0	67.0	93.3	80.1	64.5
Less than 24 cents	84.4	80.4	96.5	85.7	82.2
Less than 27 cents	91.4	87.1	97.4	90.8	92.0
Less than 30 cents	93.6	93.5	98.6	93.8	93.3
Less than 33 cents	94.8	95.2	99.0	95.7	95.2
Less than 36 cents	96.2	95.9	99.0	96.2	95.8
Less than 39 cents	97.5	96.2	99.0	97.1	99.4
All levels of cost	100.0	100.0	100.0	100.0	100.0

	Southern California-Southwest Arizona	Central Arizona	High Southern Desert	Upper Rio Grande-Pecos Valleys	Trans Pecos
	Percent	Percent	Percent	Percent	Percent
Less than 15 cents	6.4	11.5	36.2	34.9	3.2
Less than 18 cents	19.9	19.8	56.6	56.1	8.4
Less than 21 cents	46.7	41.1	74.2	73.6	20.6
Less than 24 cents	76.4	63.8	87.6	85.0	38.0
Less than 27 cents	83.0	79.4	92.3	88.9	53.5
Less than 30 cents	88.1	84.5	96.9	91.5	64.1
Less than 33 cents	93.3	85.6	98.9	93.0	72.7
Less than 36 cents	96.0	87.2	99.0	94.6	85.5
Less than 39 cents	96.0	90.0	99.0	97.2	88.5
All levels of cost	100.0	100.0	100.0	100.0	100.0